



ADDITIONAL MATERIALS AVAILABLE ON THE HEI WEBSITE

Research Report 197

Cellular and Acellular Assays for Measuring Oxidative Stress Induced by Ambient and Laboratory-Generated Aerosols

Ng et al.

Additional Materials 4.1

Appendix D.1: Dose–Response Curves and Metrics for Ambient Samples

Note: Additional Materials may appear in a different order than in the original Investigators' Report, and some remnants of their original names may be apparent. HEI has not changed the content of these documents, only their numeric identifiers. Additional Materials 4.1 was originally part of Appendix D.

These Additional Materials were not formatted or edited by HEI. This document was part of the HEI Review Committee's review process.

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Appendix D.1: Dose-response curves and metrics for ambient samples

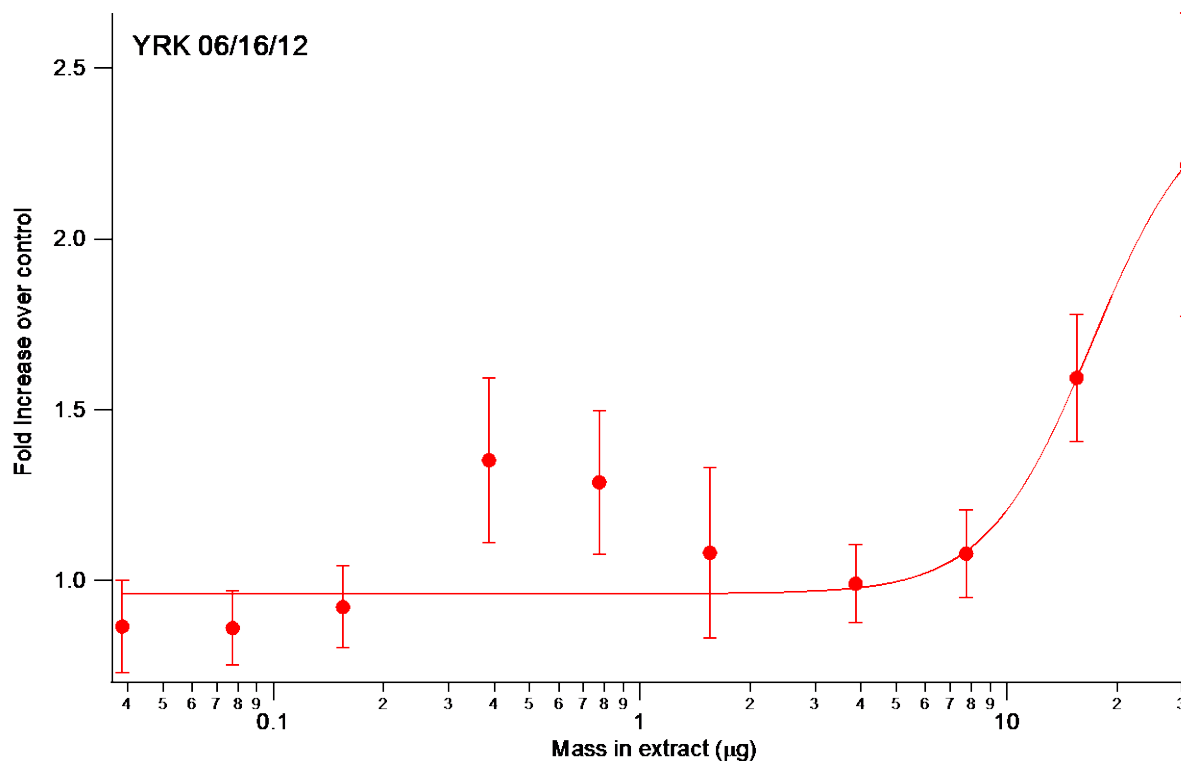


Figure D1. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 06/16/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in μg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

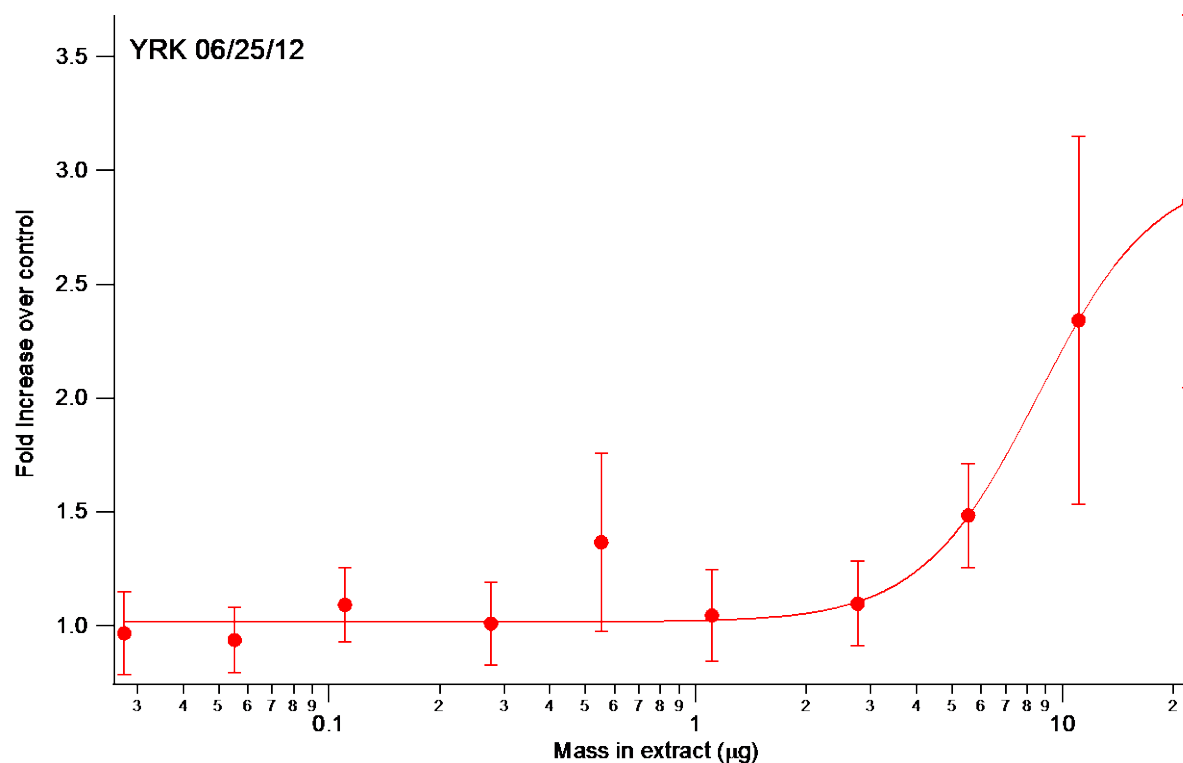


Figure D2. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 06/25/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

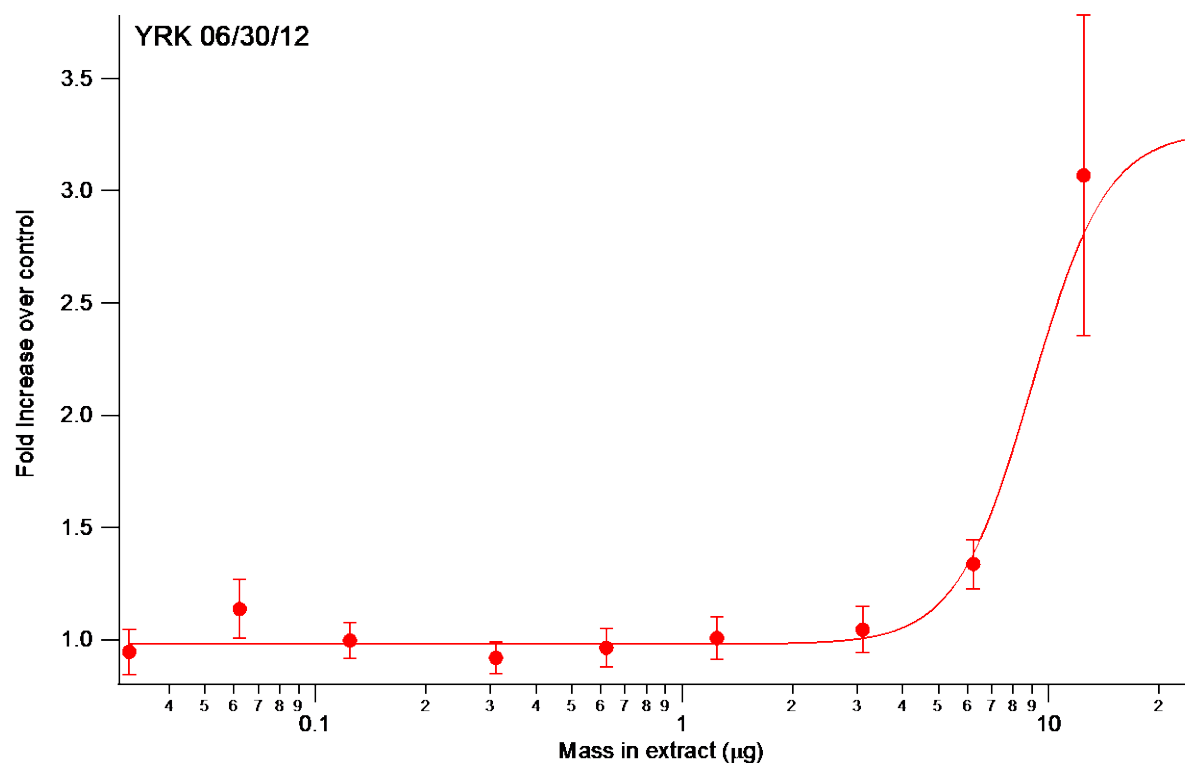


Figure D3. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 06/30/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in μg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

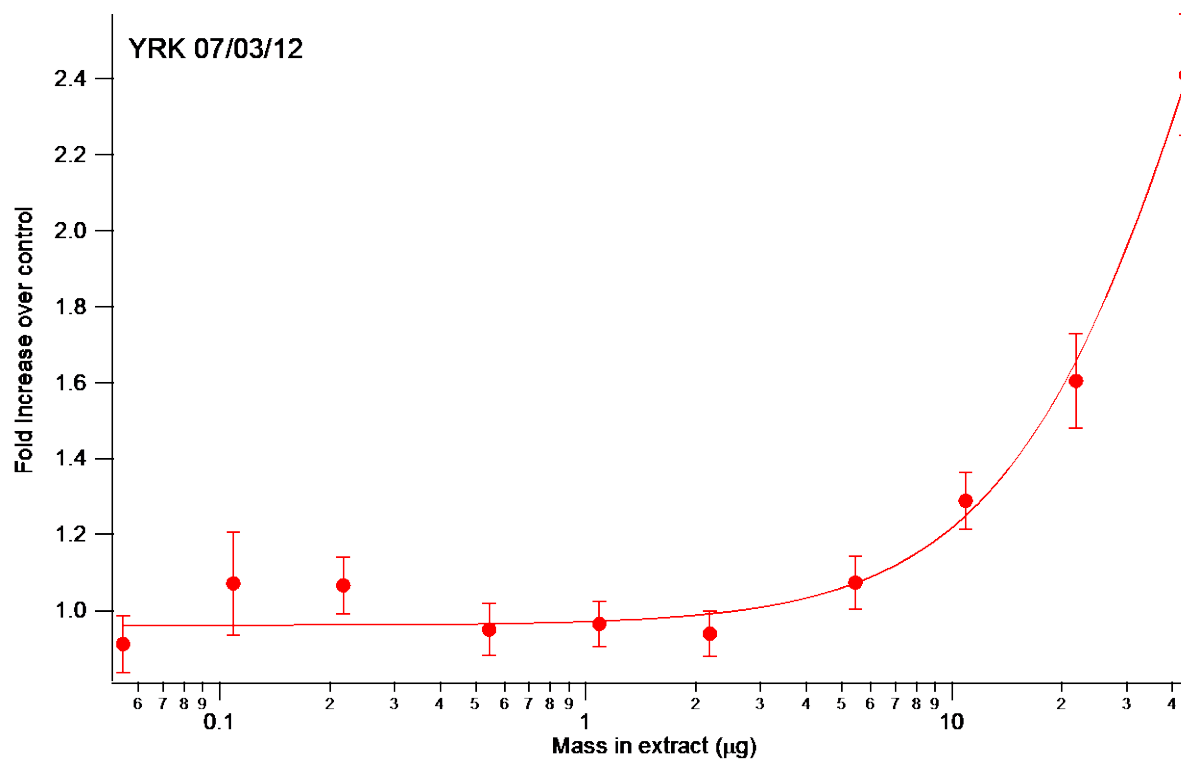


Figure D4. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 07/03/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in μg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

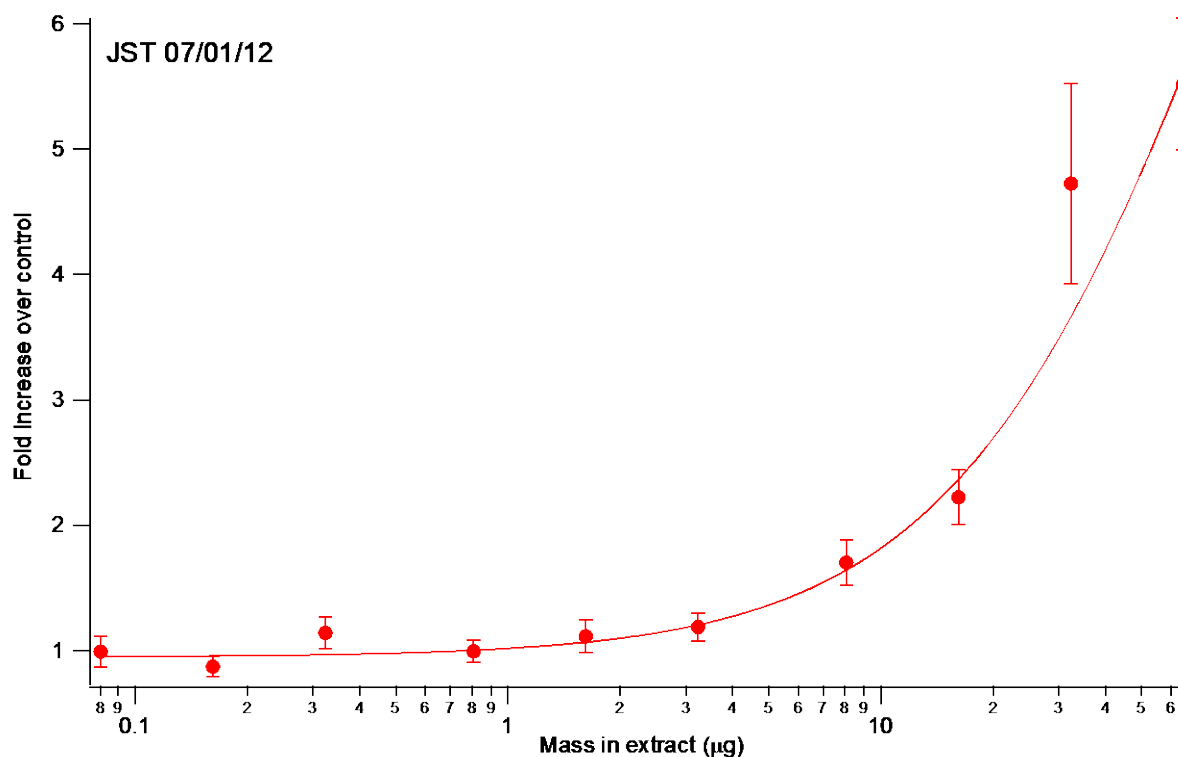


Figure D5. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 07/01/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in μg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

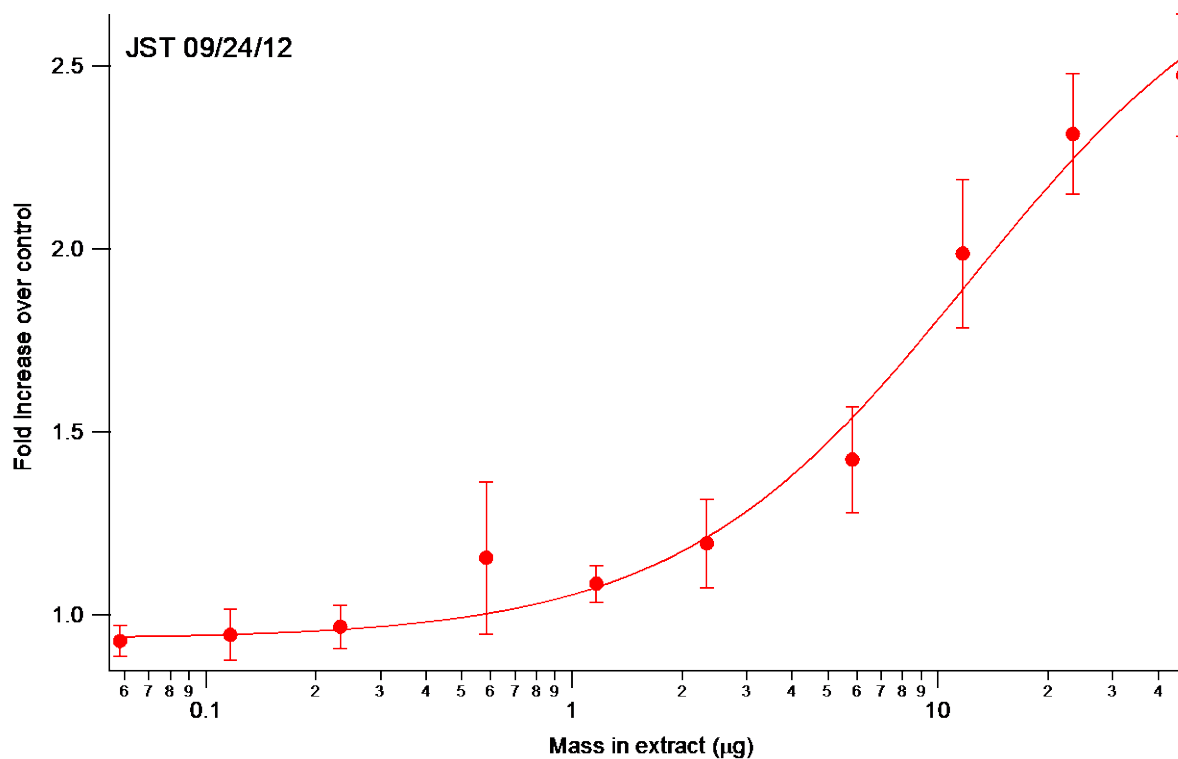


Figure D6. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 09/24/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in μg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

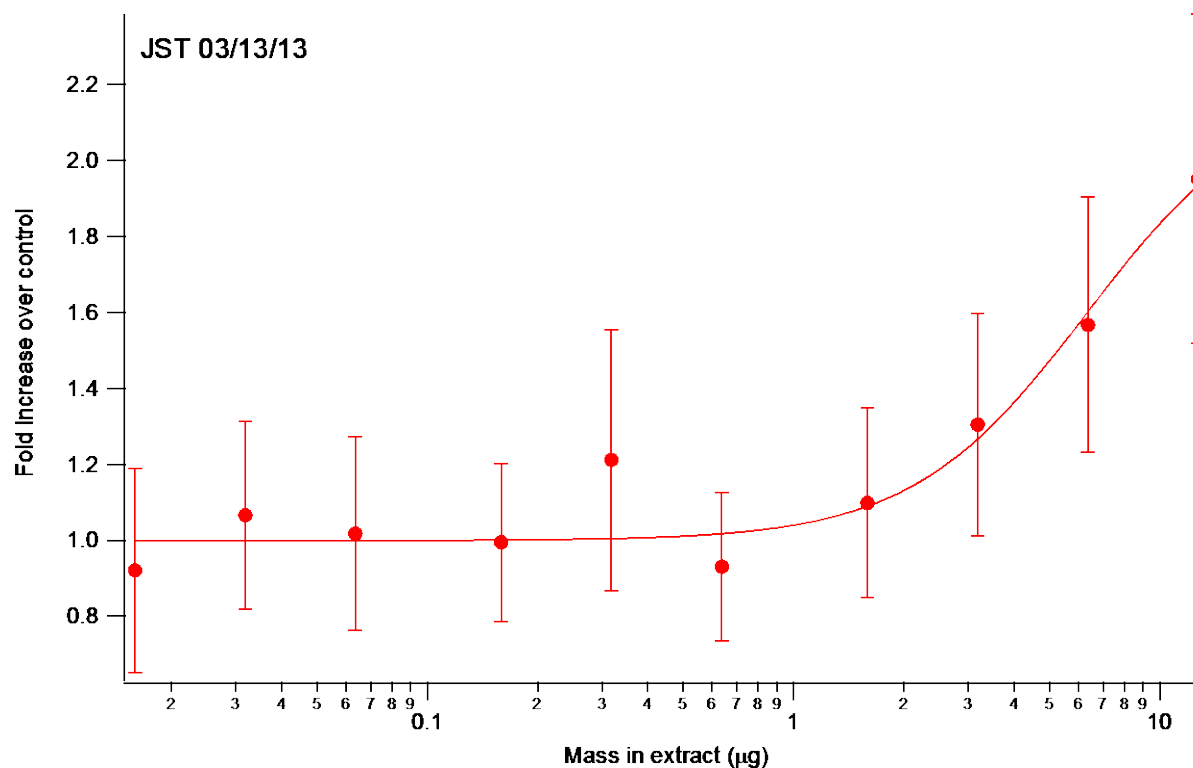


Figure D7. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 03/13/13). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in μg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

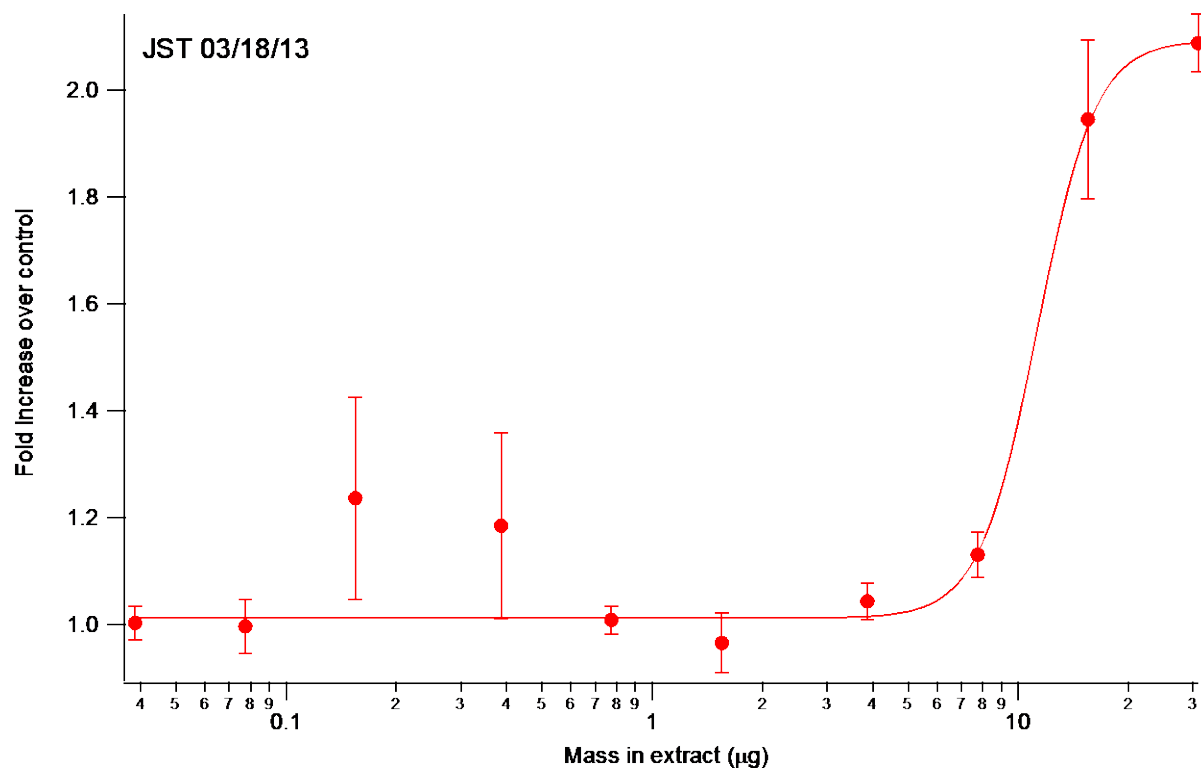


Figure D8. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 03/18/13). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

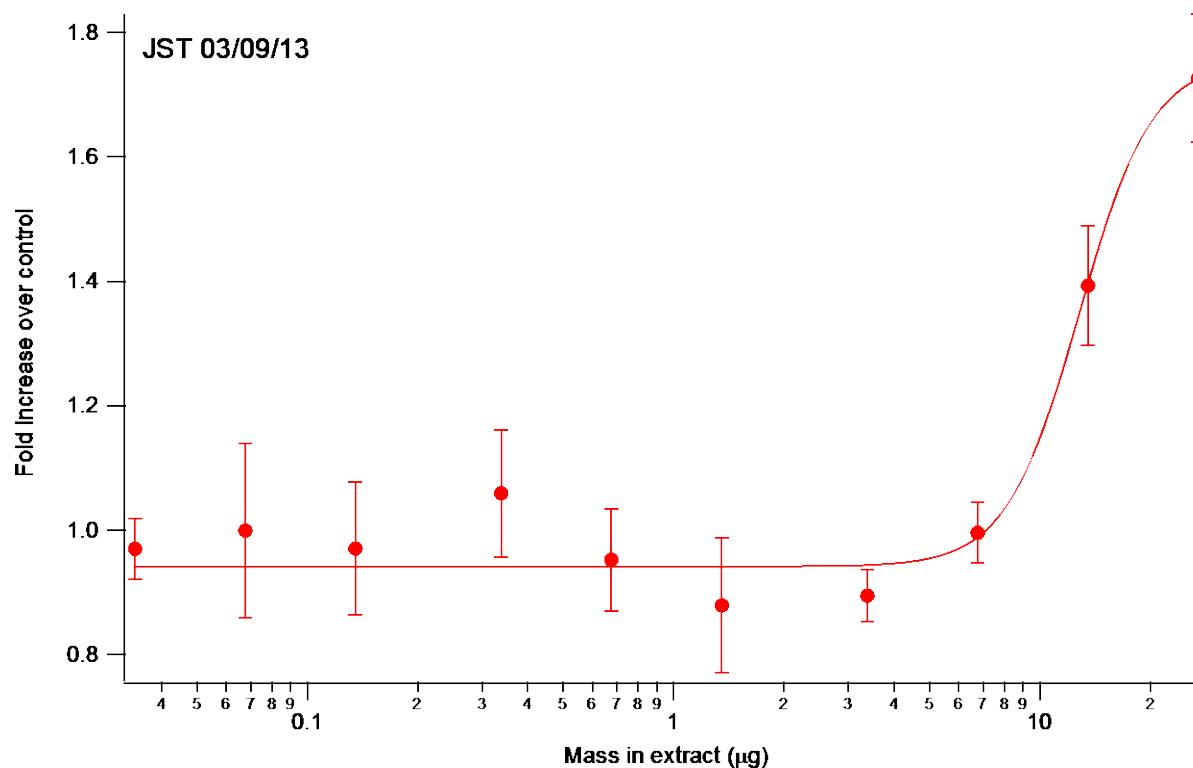


Figure D9. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 03/09/13). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

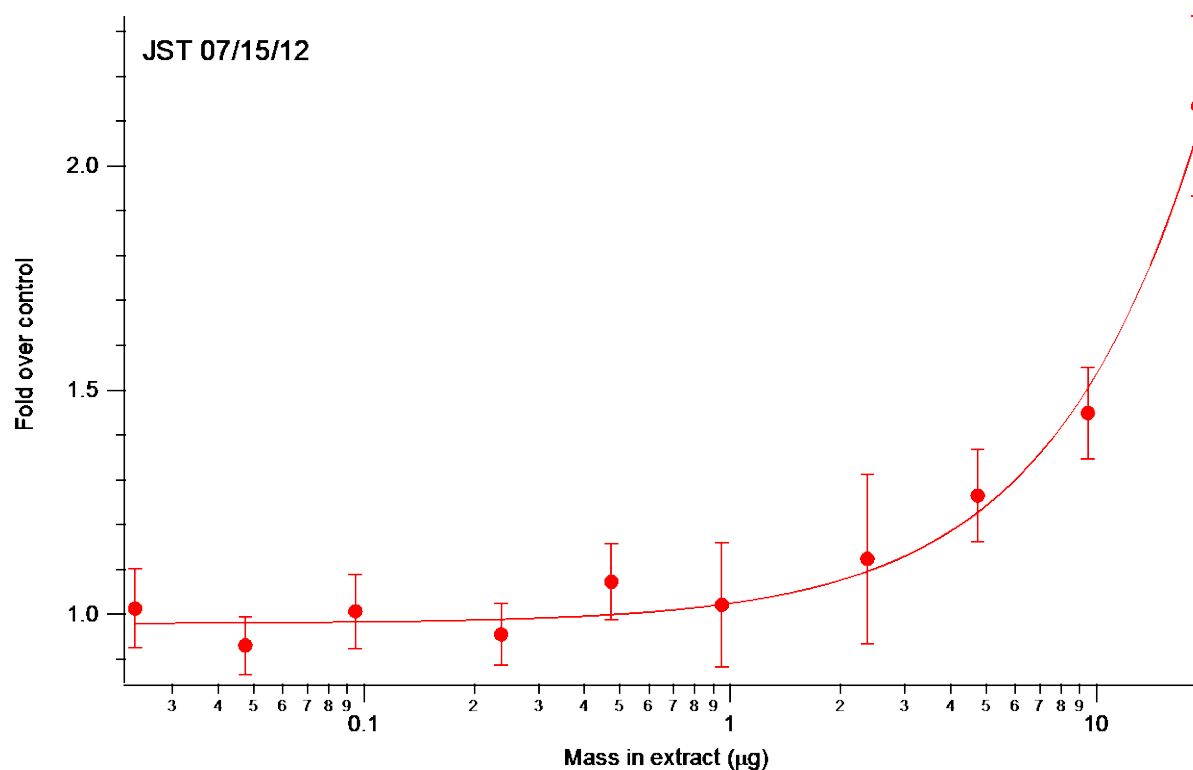


Figure D10. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 07/15/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in μg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

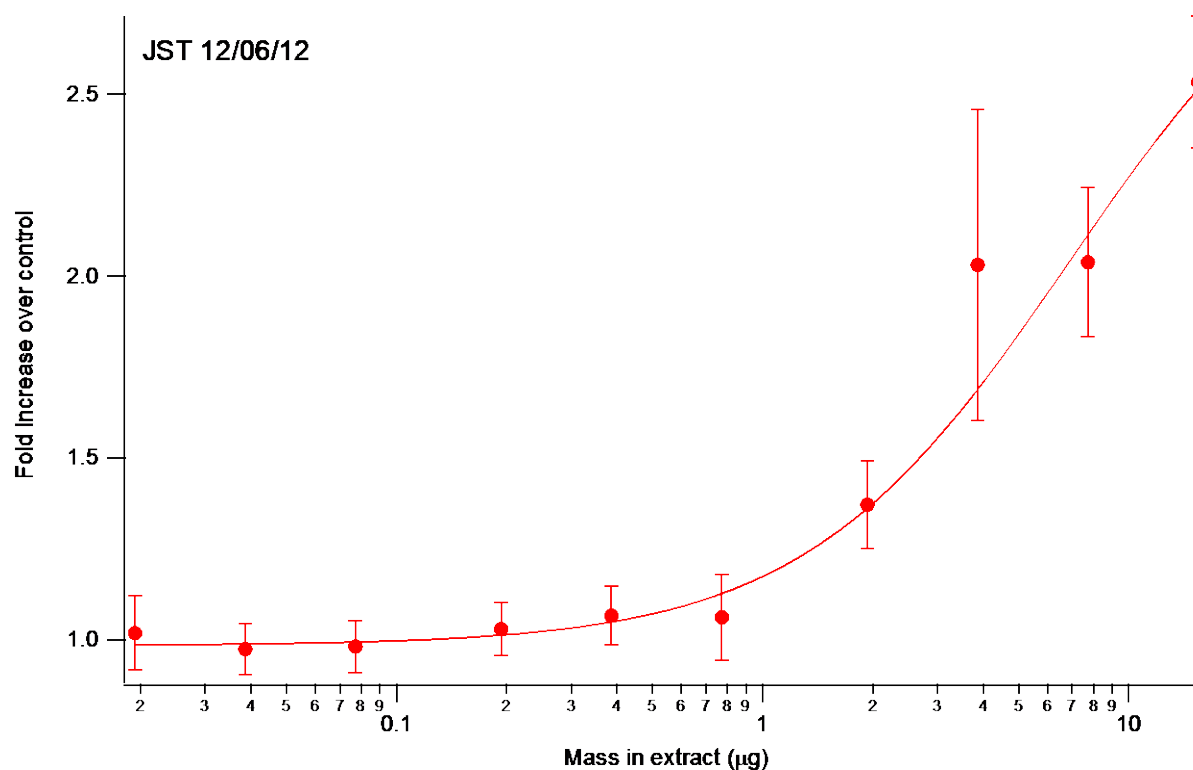


Figure D11. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 12/06/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

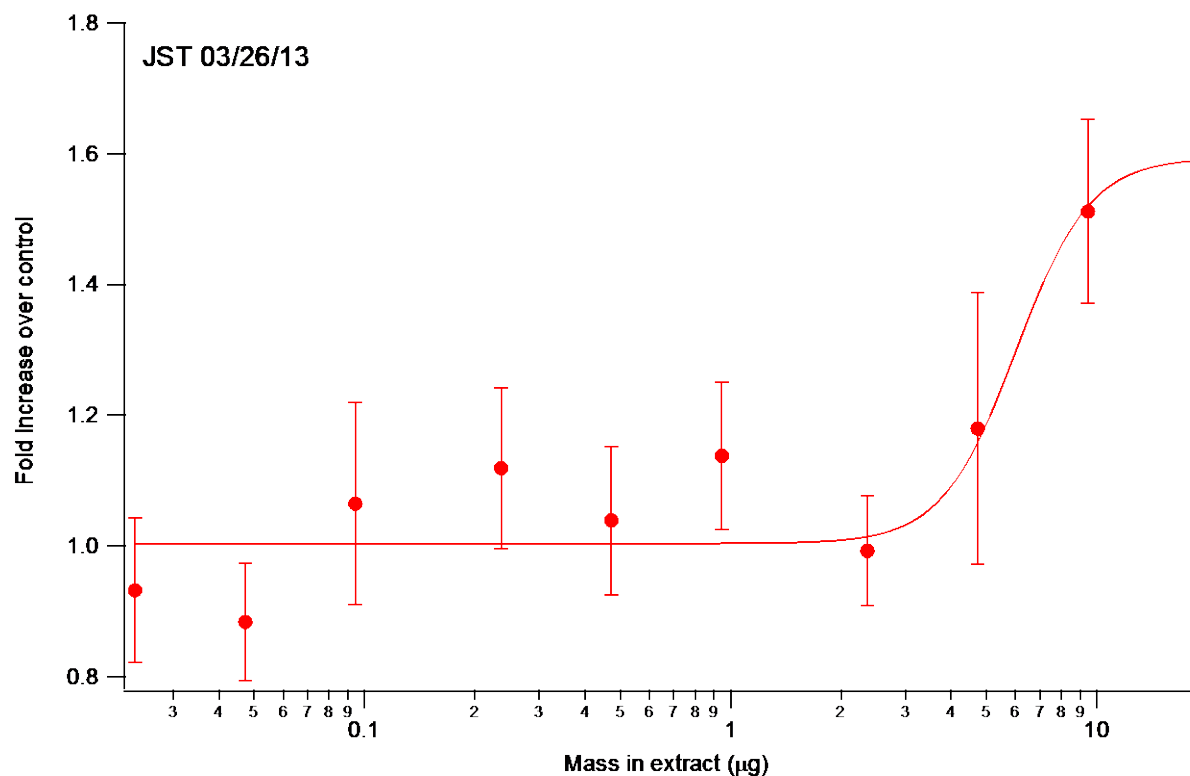


Figure D12. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 03/26/13). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

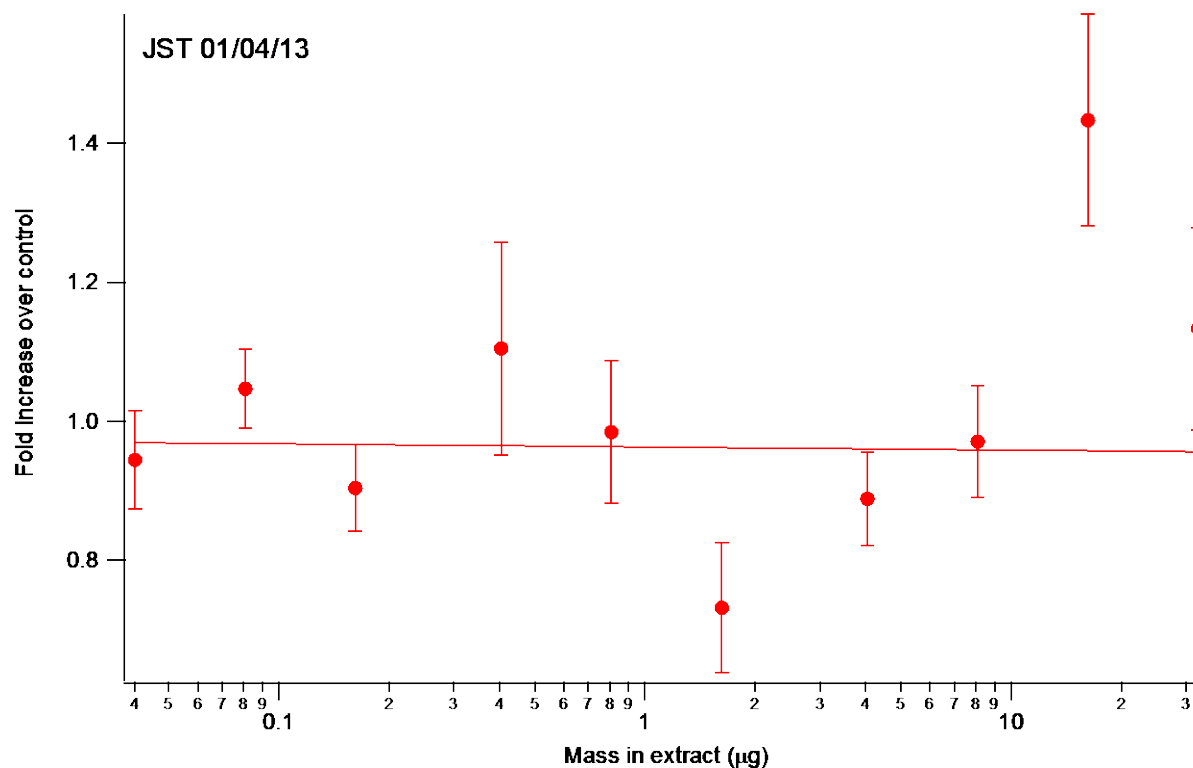


Figure D13. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 01/04/13). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

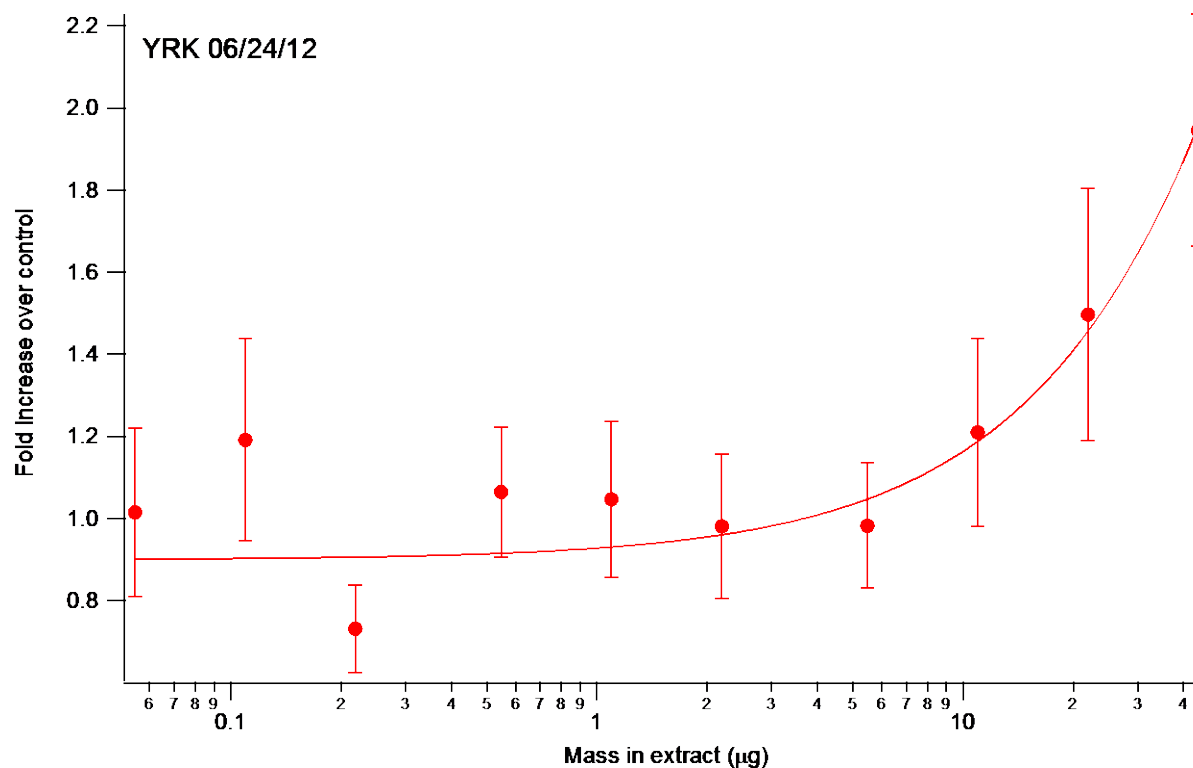


Figure D14. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 06/24/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

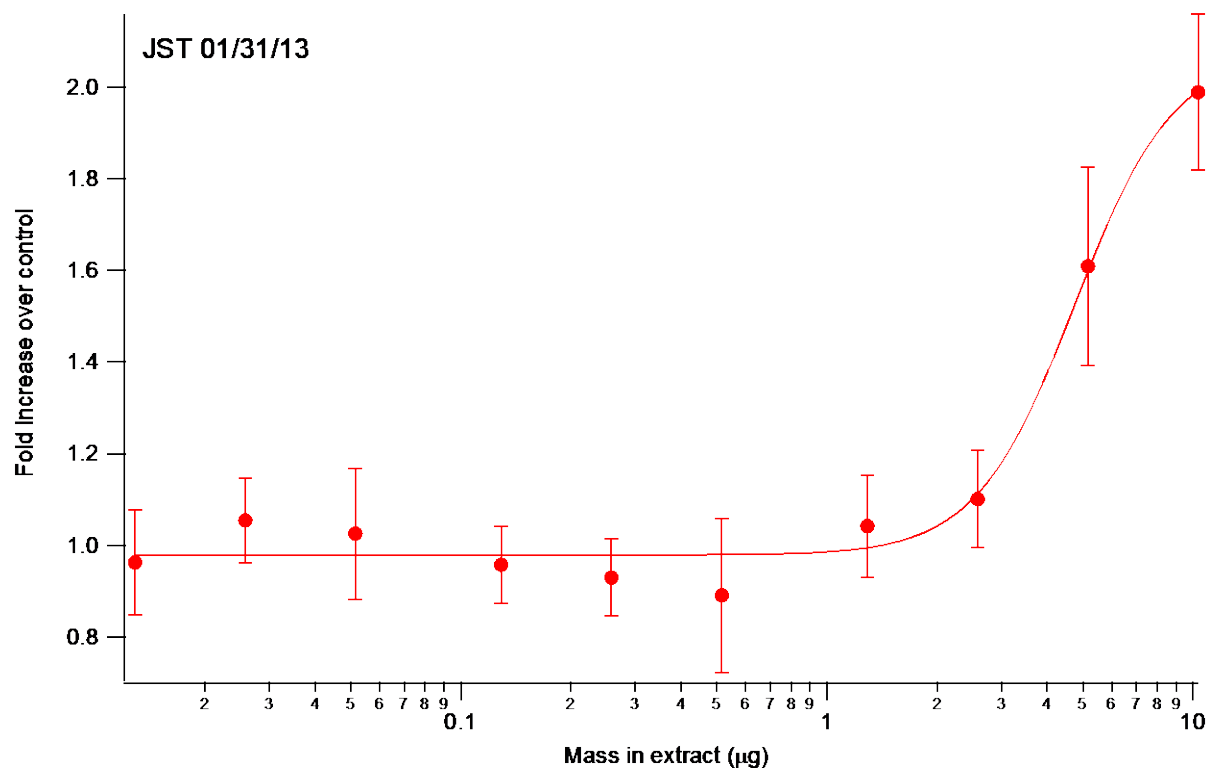


Figure D15. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 01/31/13). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

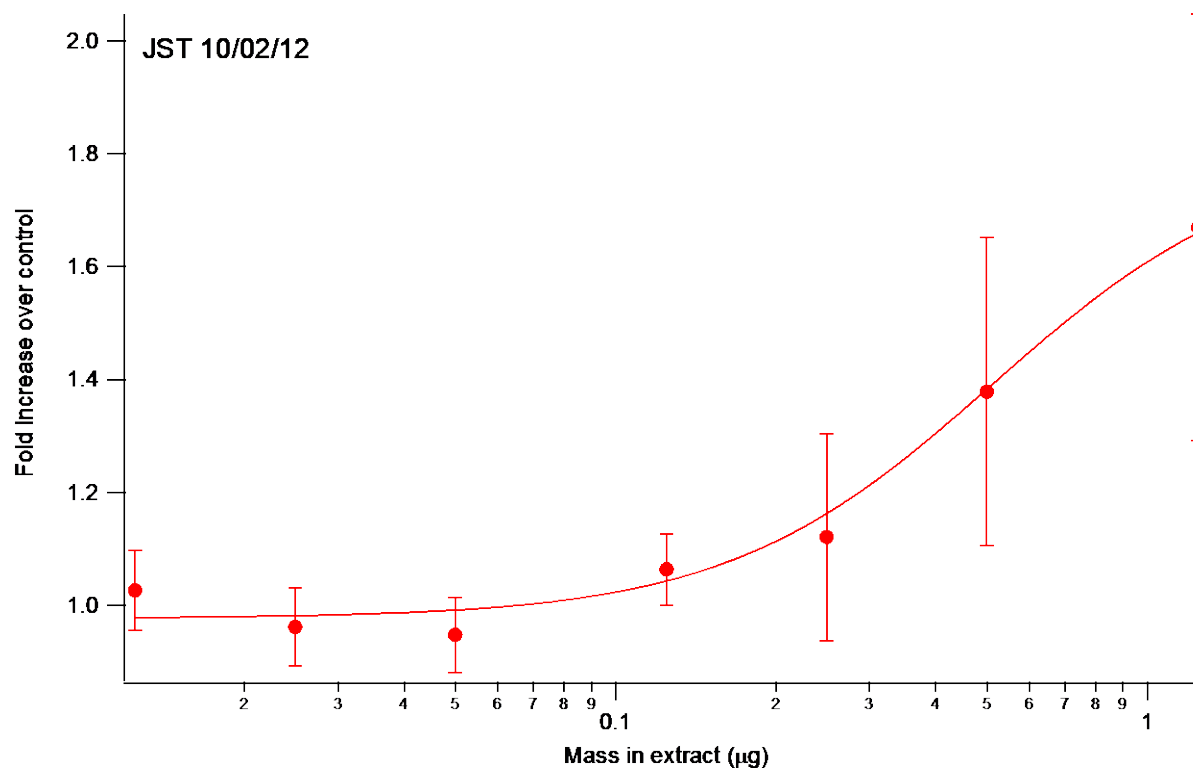


Figure D16. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 10/02/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

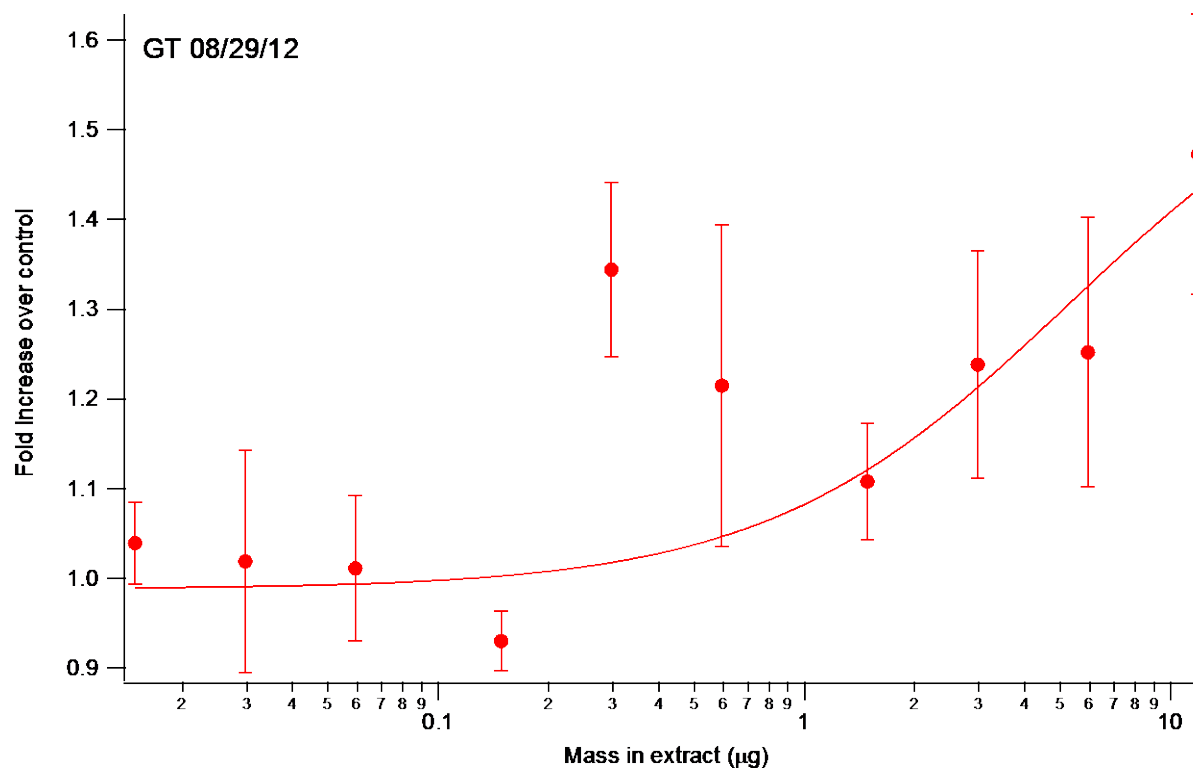


Figure D17. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: GT 08/29/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

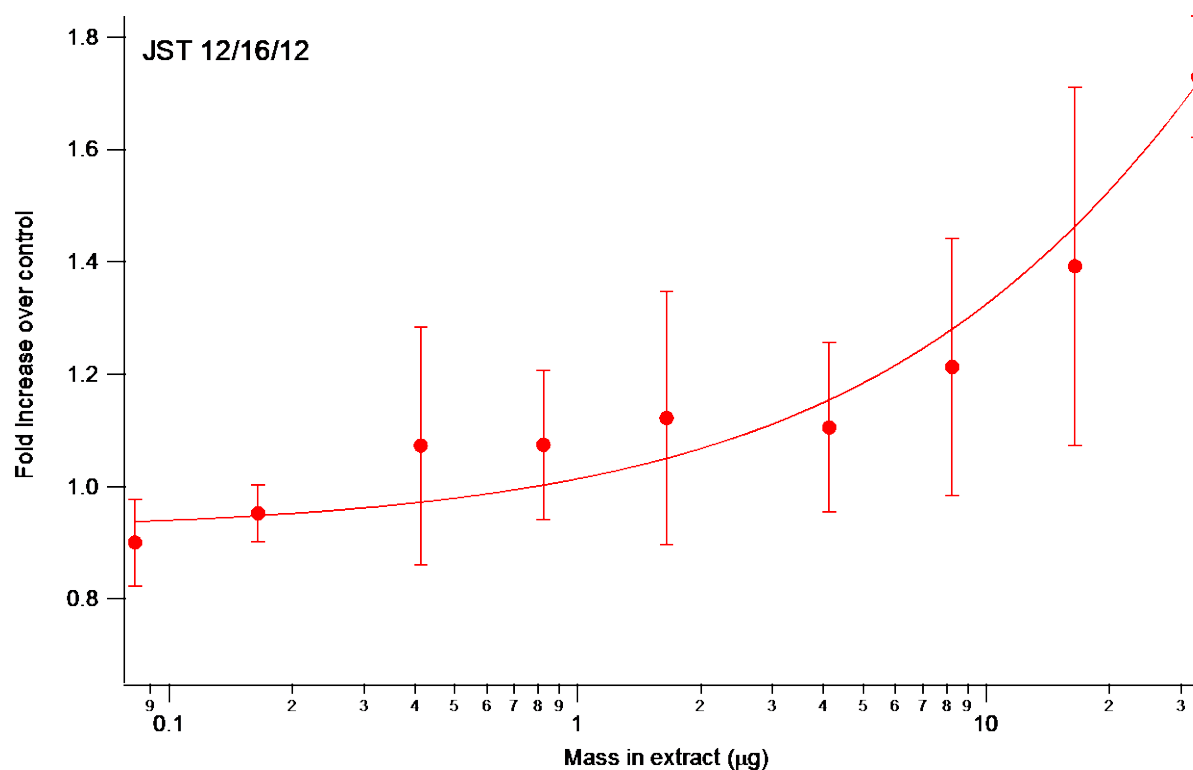


Figure D18. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 12/16/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

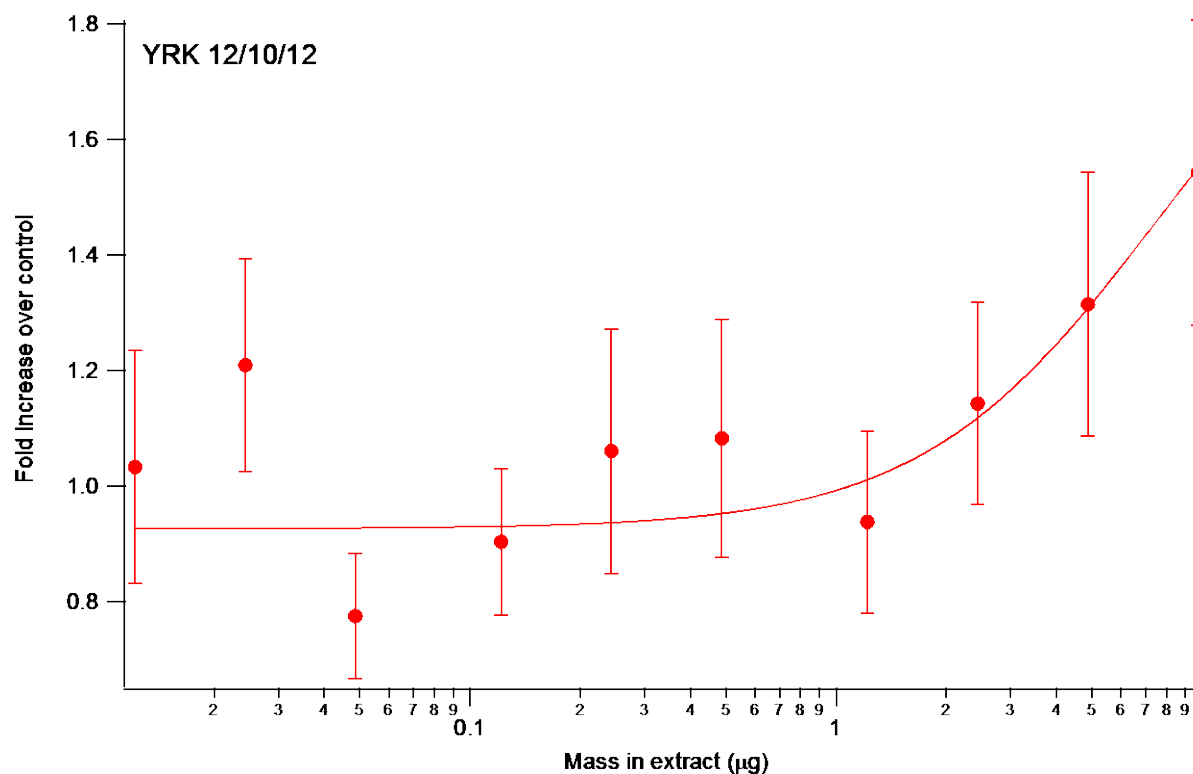


Figure D19. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 12/10/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

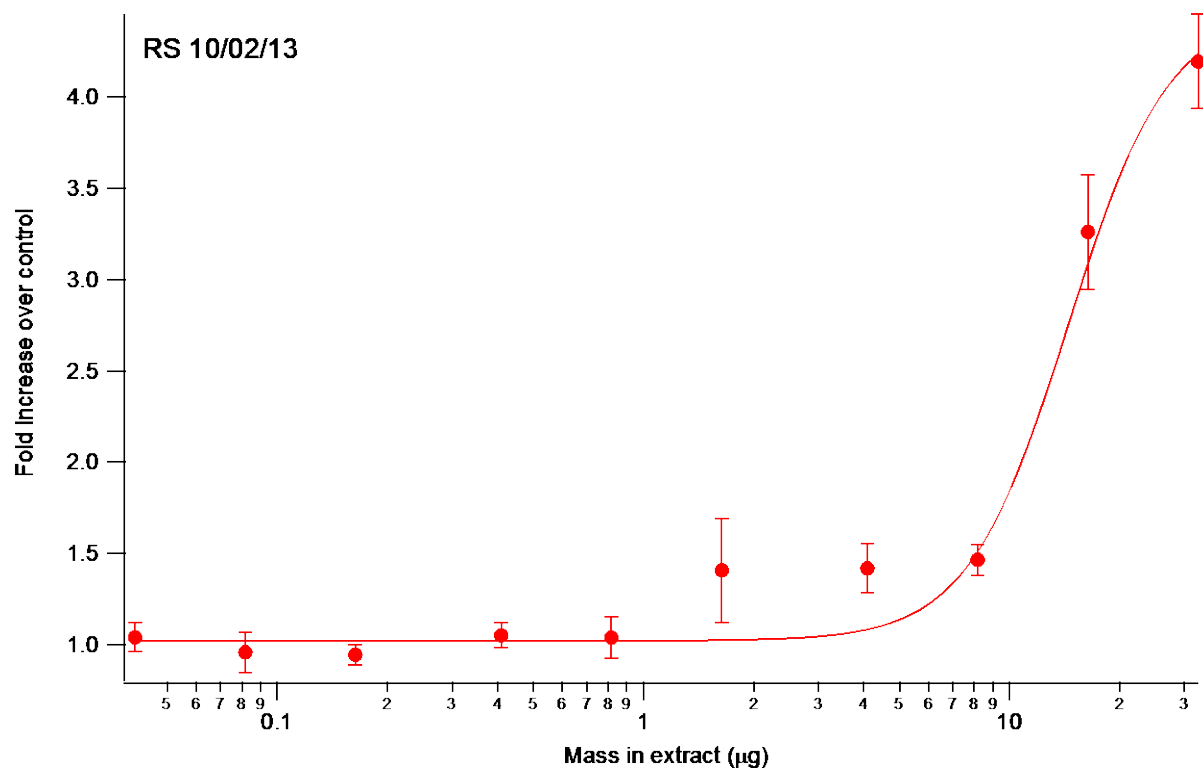


Figure D20. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: RS 10/02/13). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

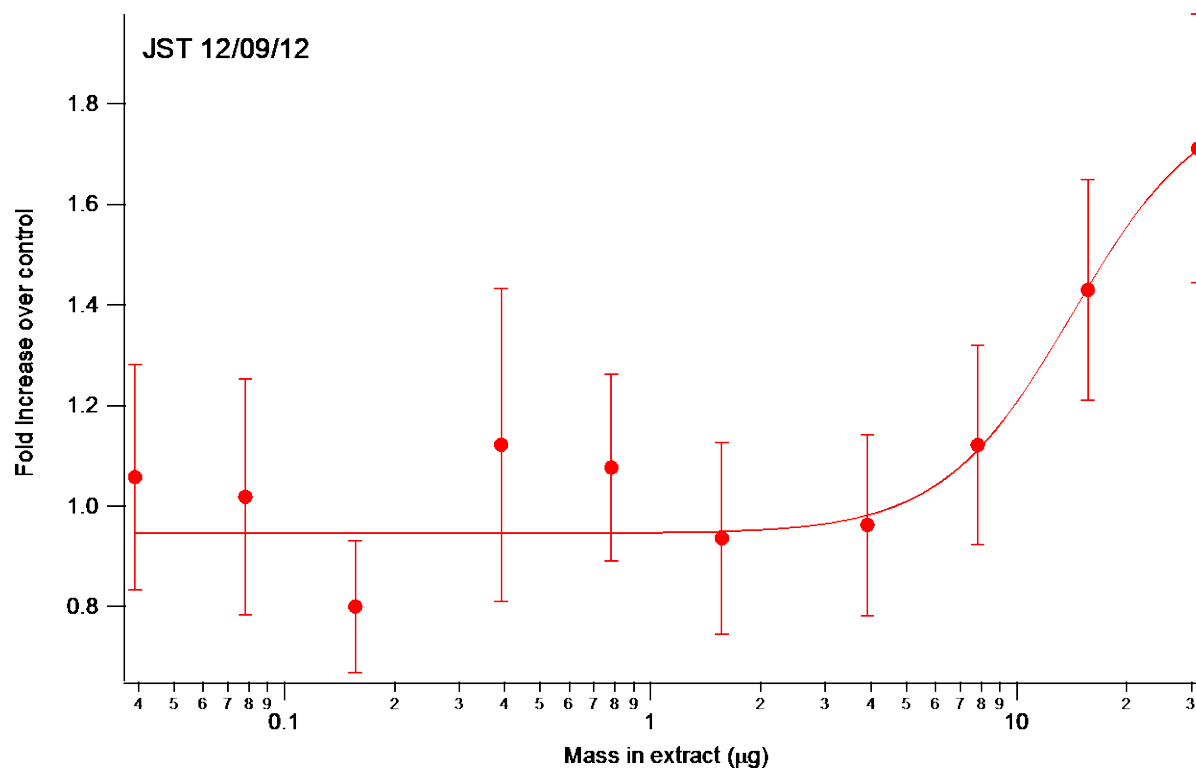


Figure D21. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 12/09/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

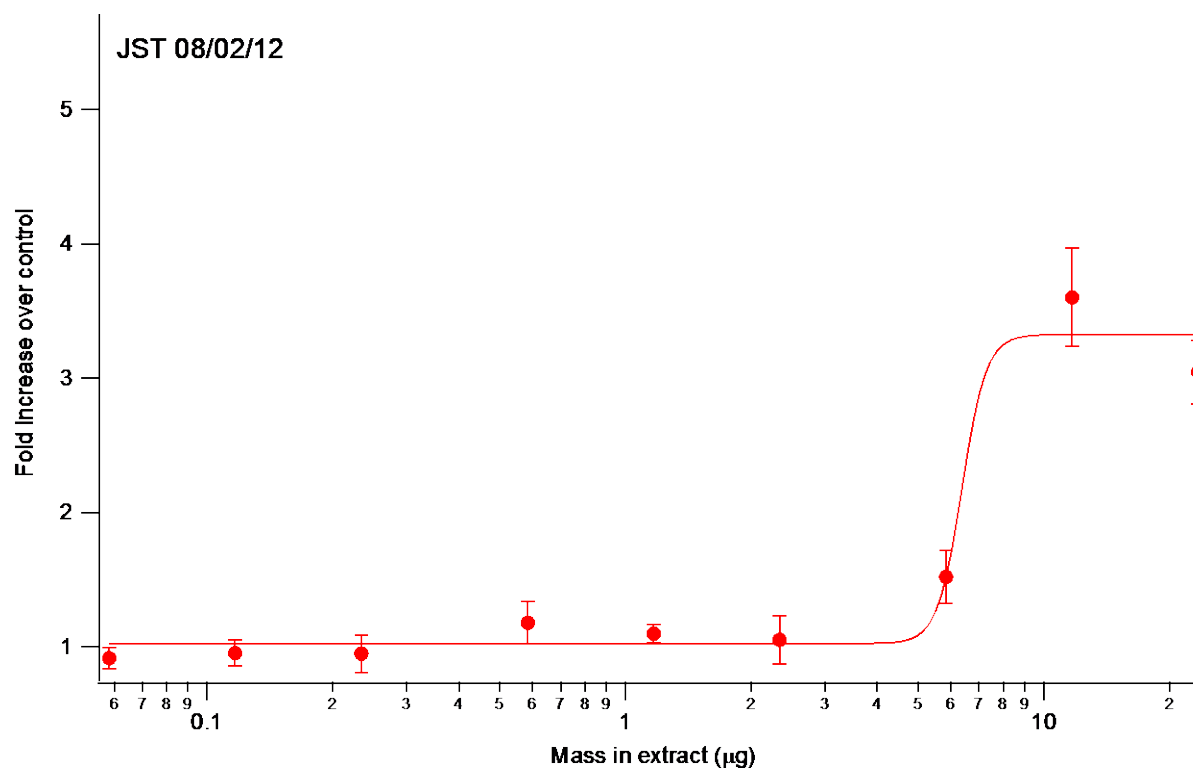


Figure D22. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 08/02/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in μg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

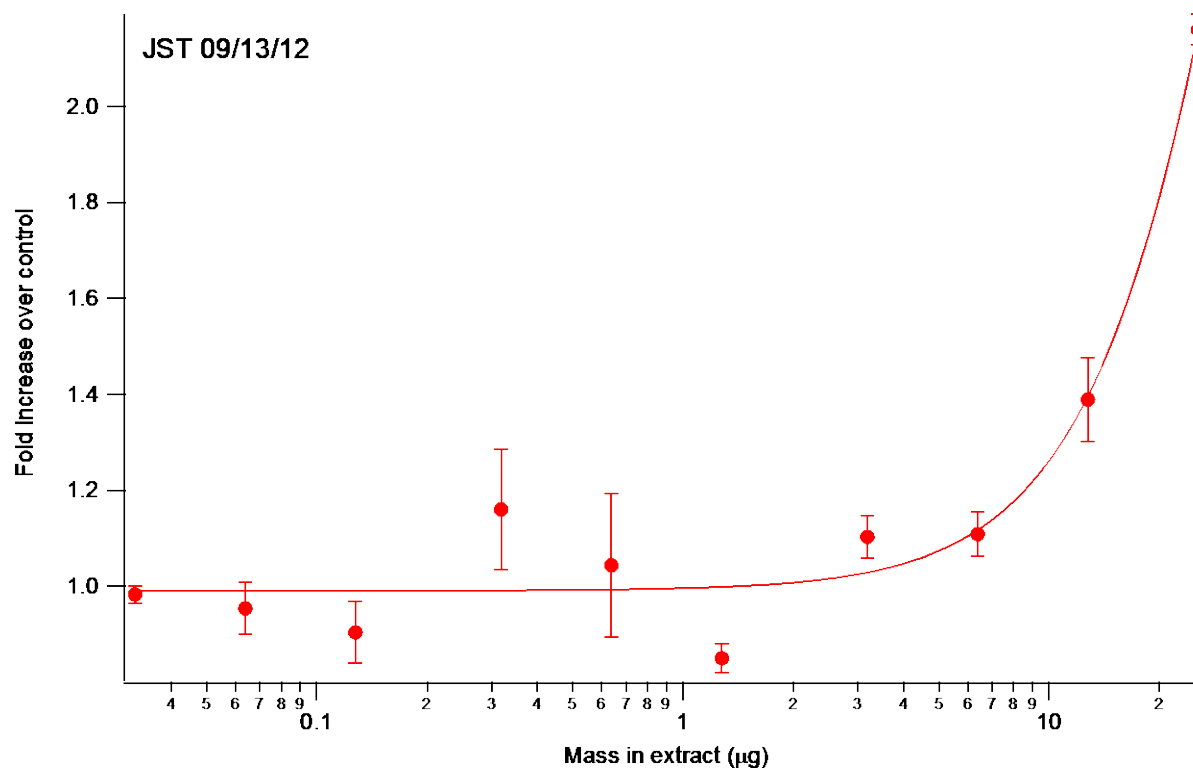


Figure D23. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 09/13/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

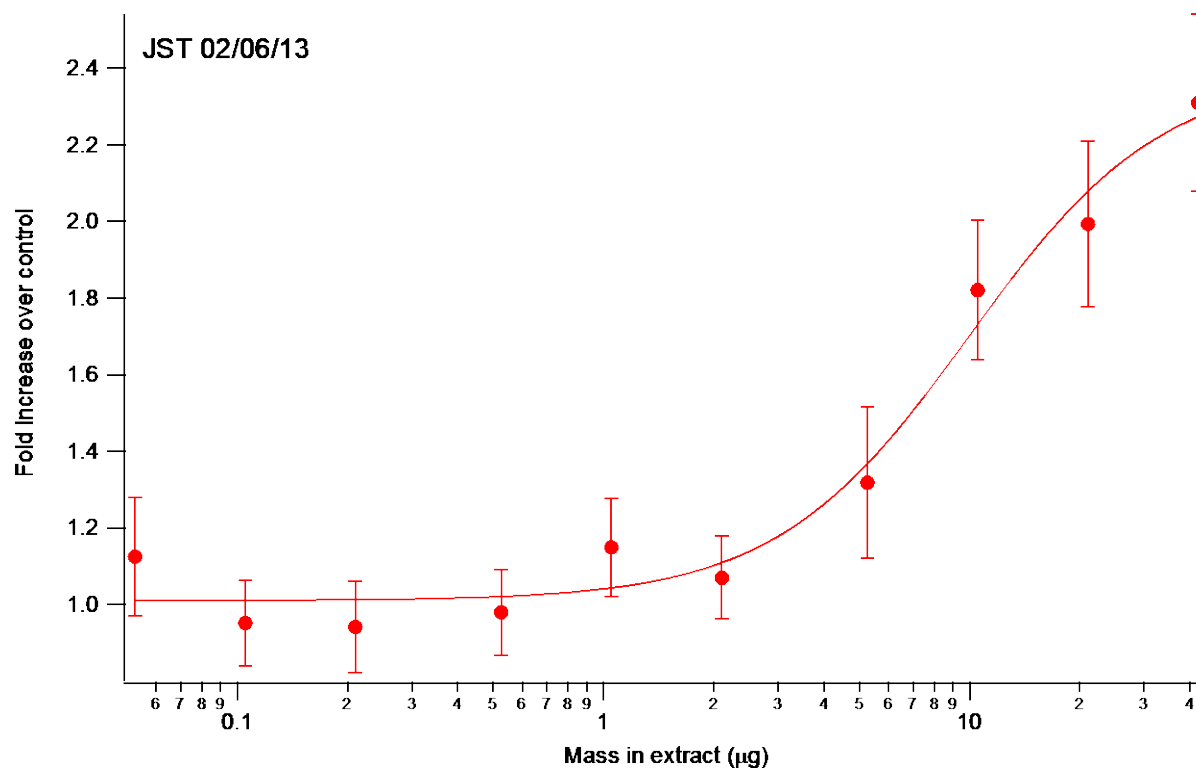


Figure D24. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 02/06/13). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

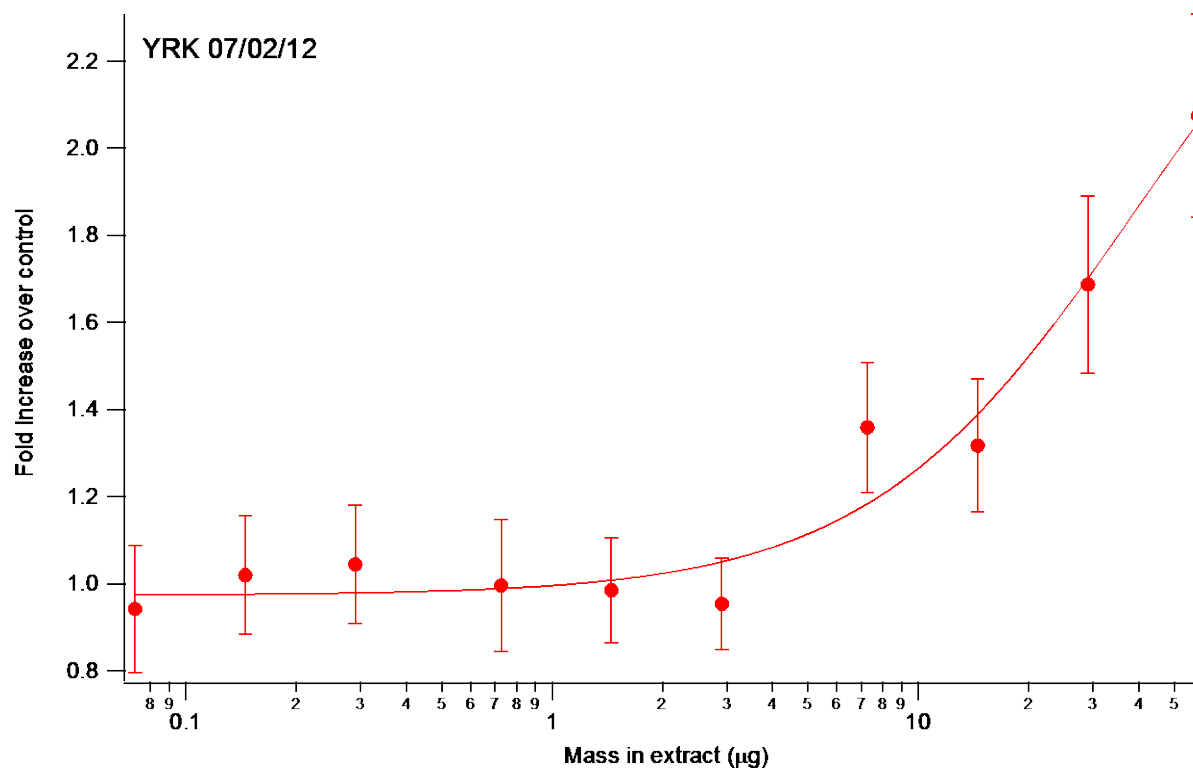


Figure D25. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 07/02/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

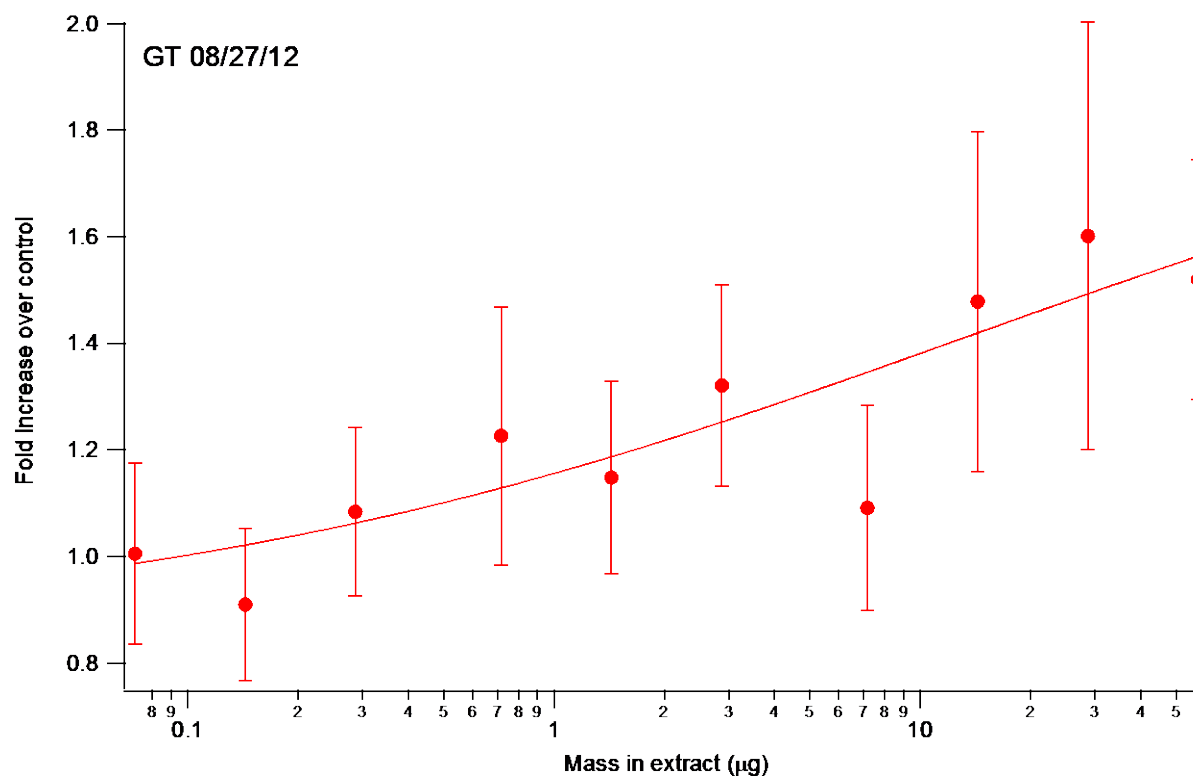


Figure D26. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: GT 08/27/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

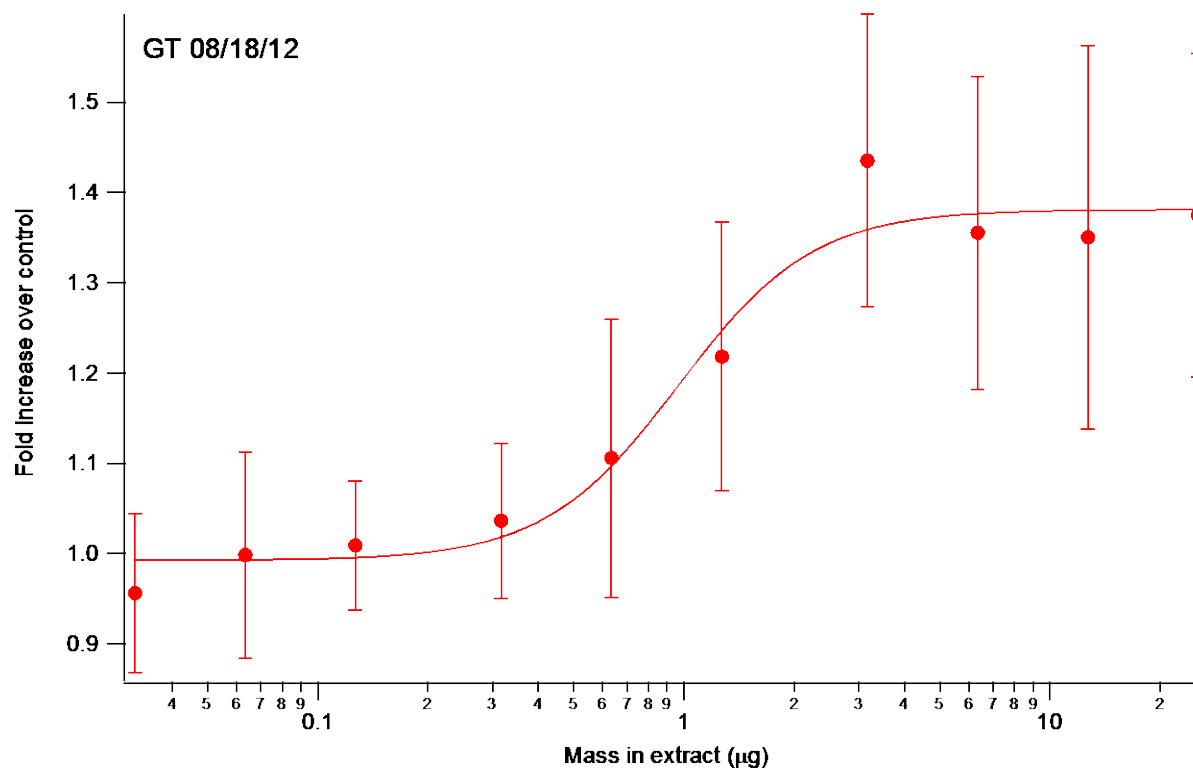


Figure D27. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: GT 08/18/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in μg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

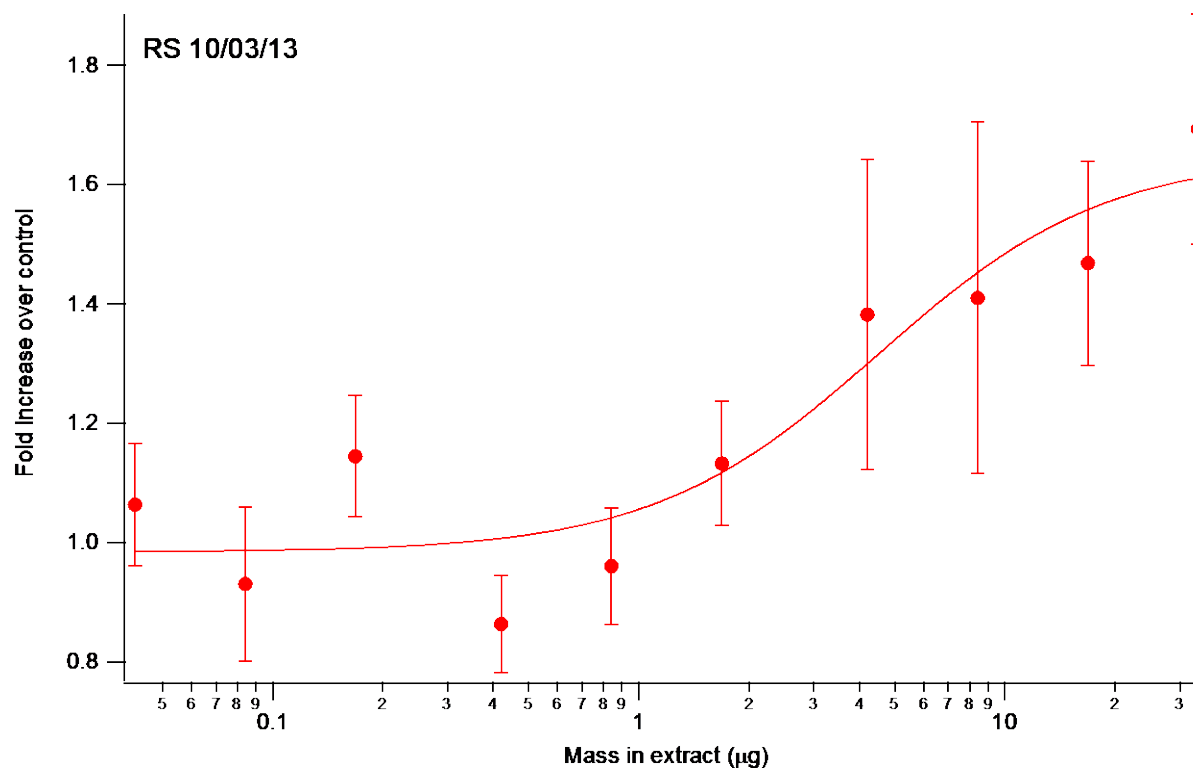


Figure D28. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: RS 10/03/13). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

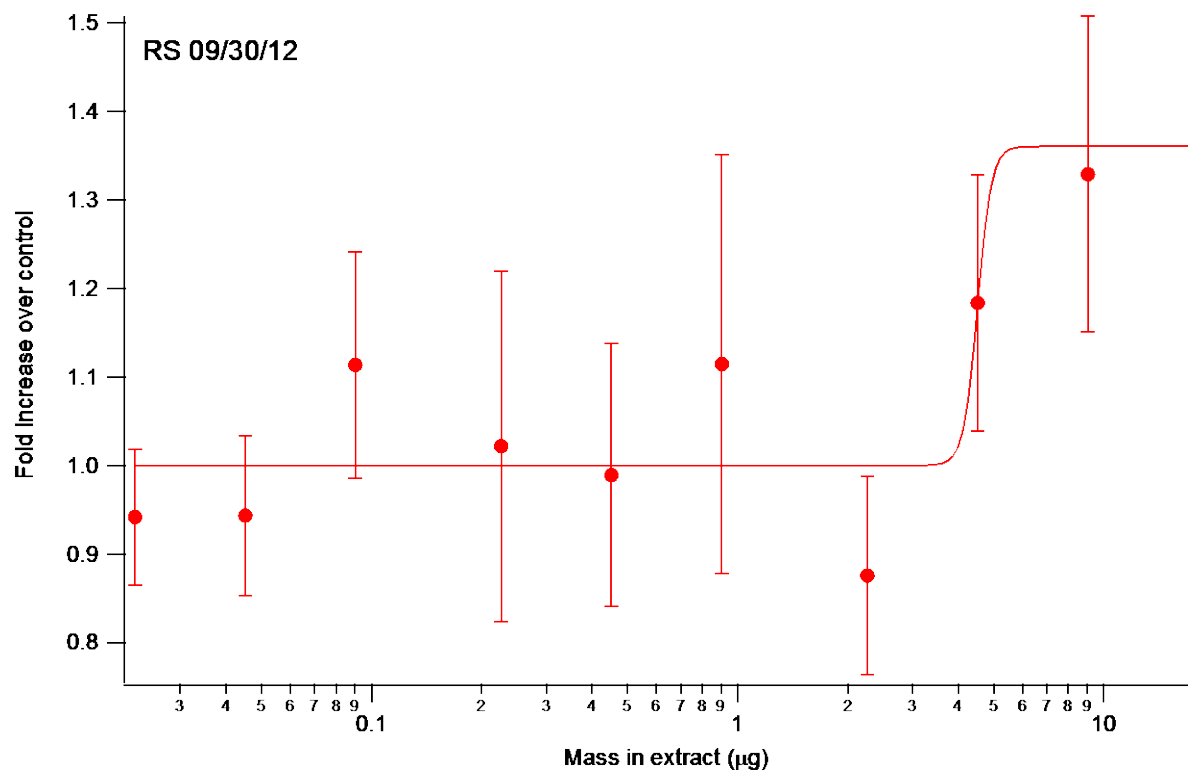


Figure D29. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: RS 09/30/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

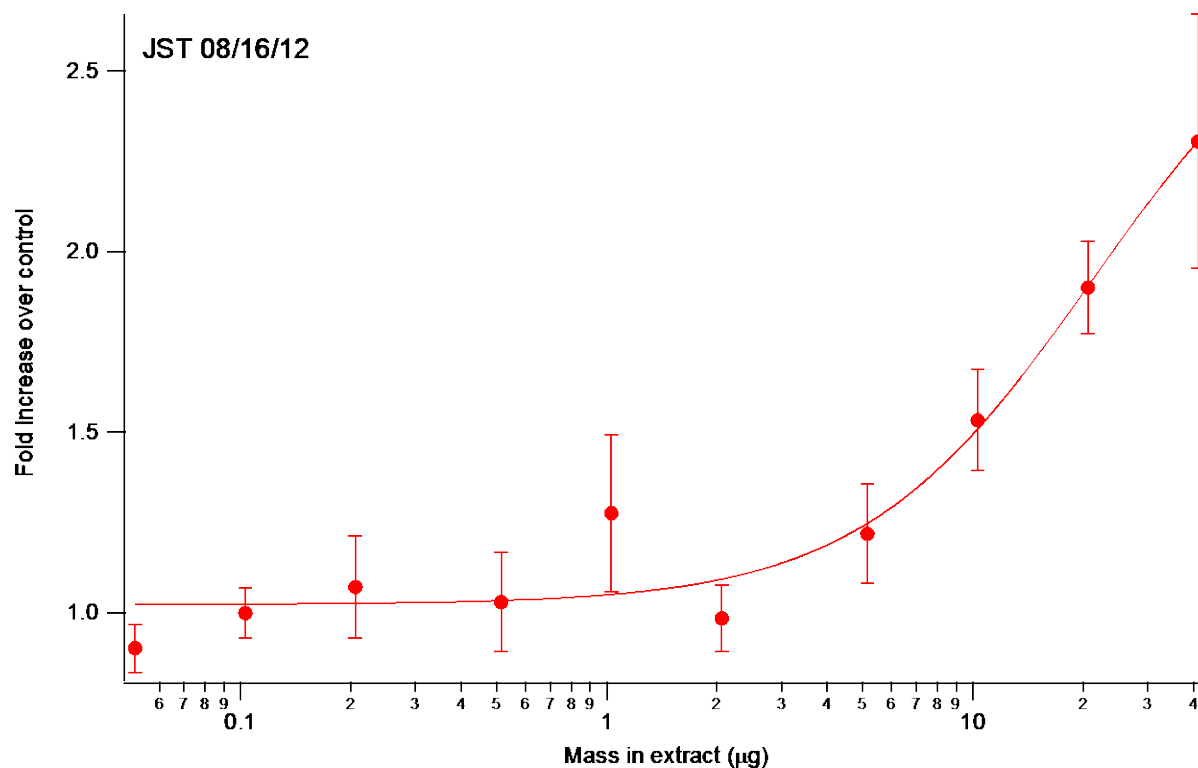


Figure D30. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 08/16/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

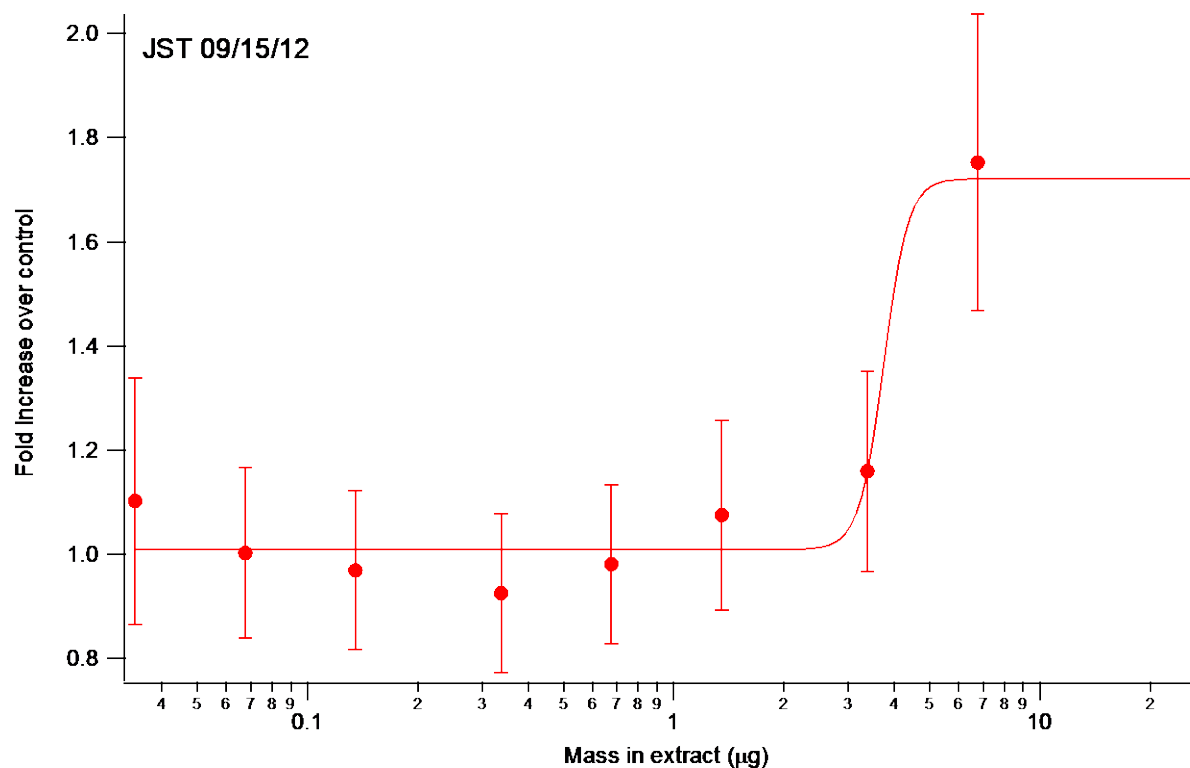


Figure D31. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 09/15/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

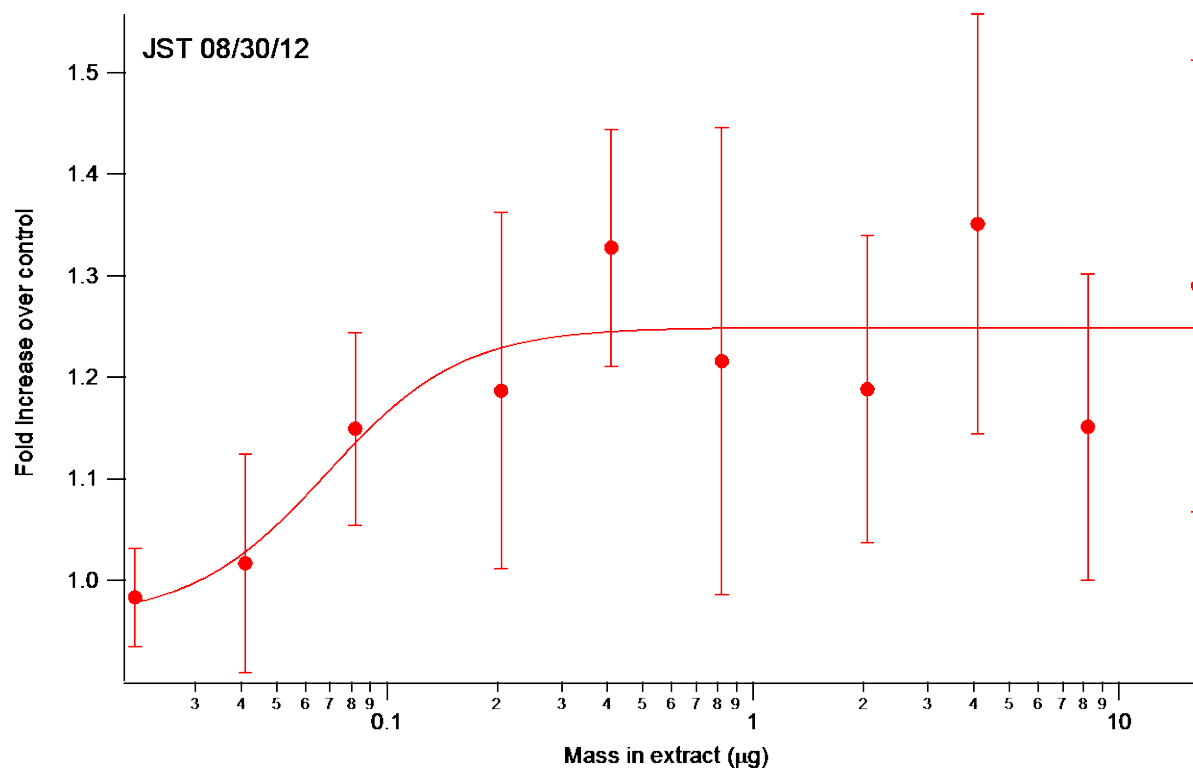


Figure D32. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 08/30/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

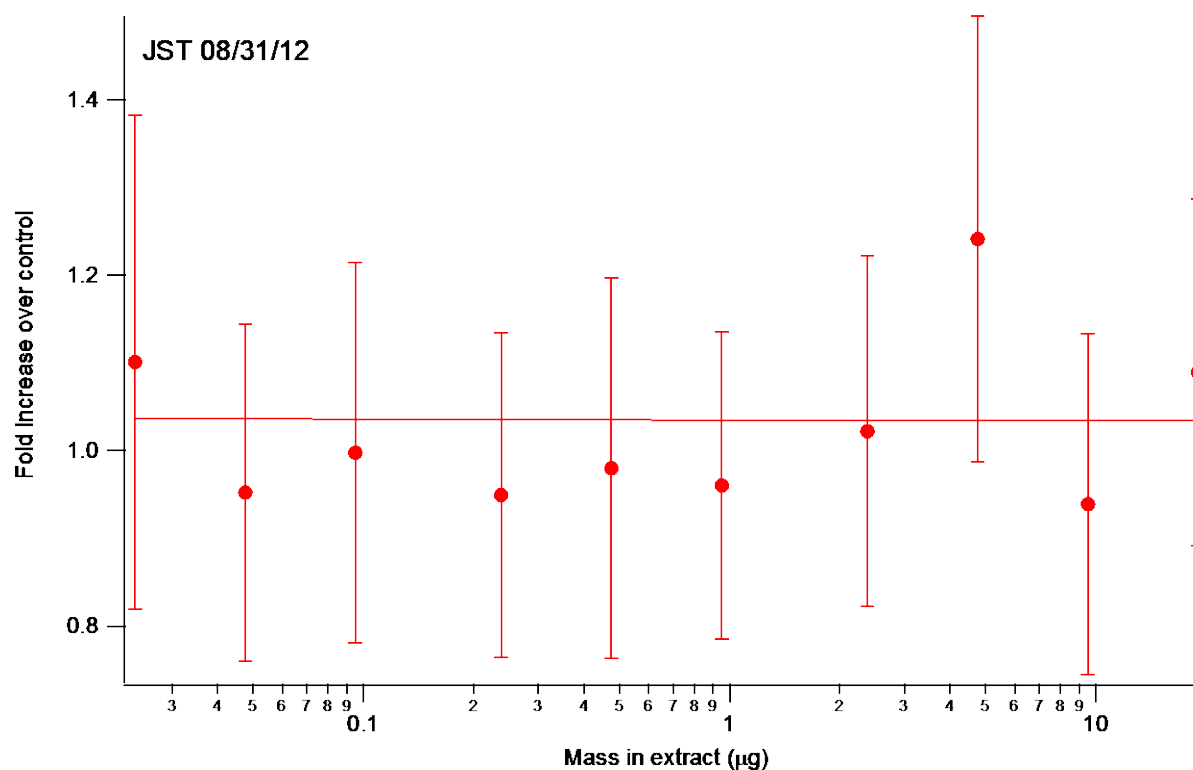


Figure D33. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 08/31/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

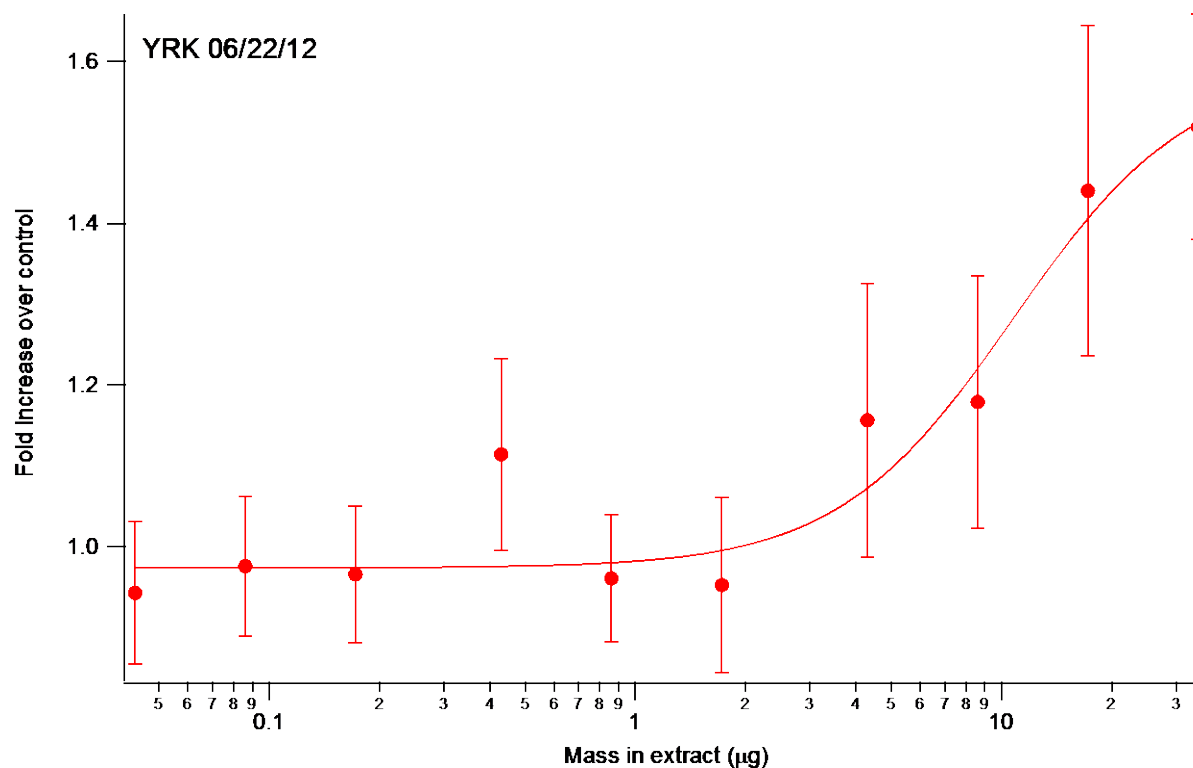


Figure D34. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 06/22/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

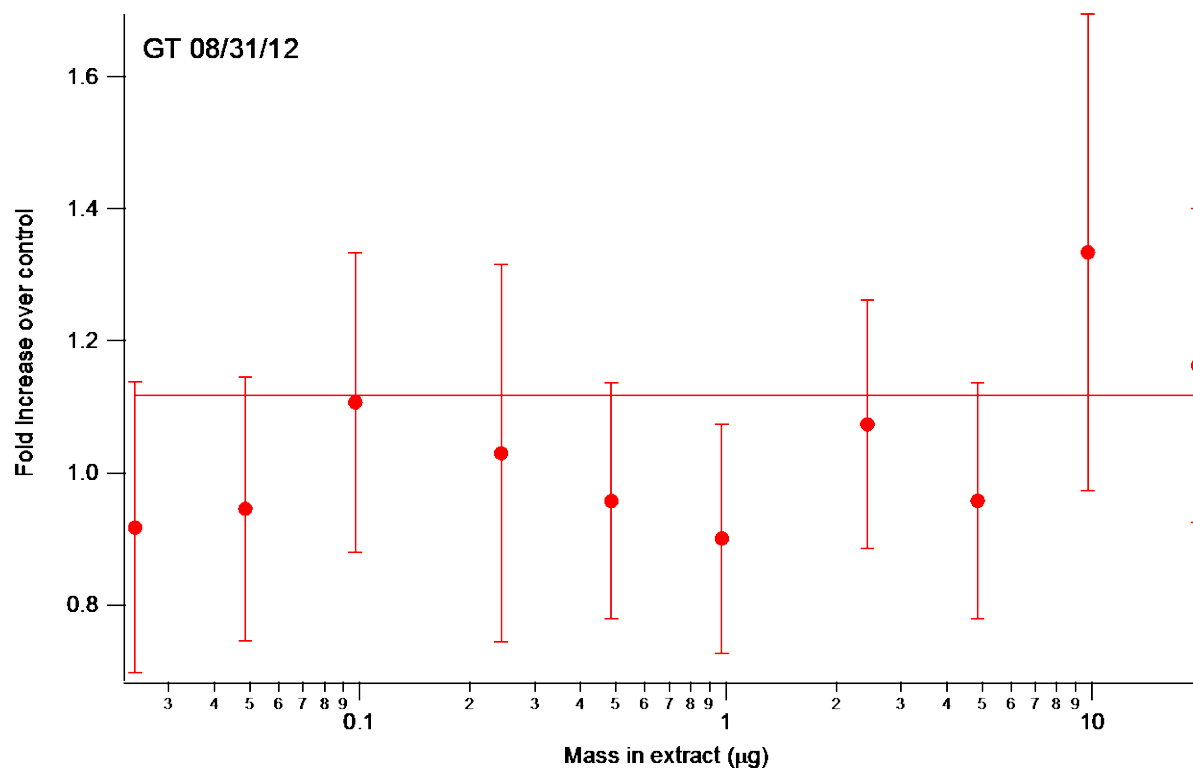


Figure D35. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: GT 08/31/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

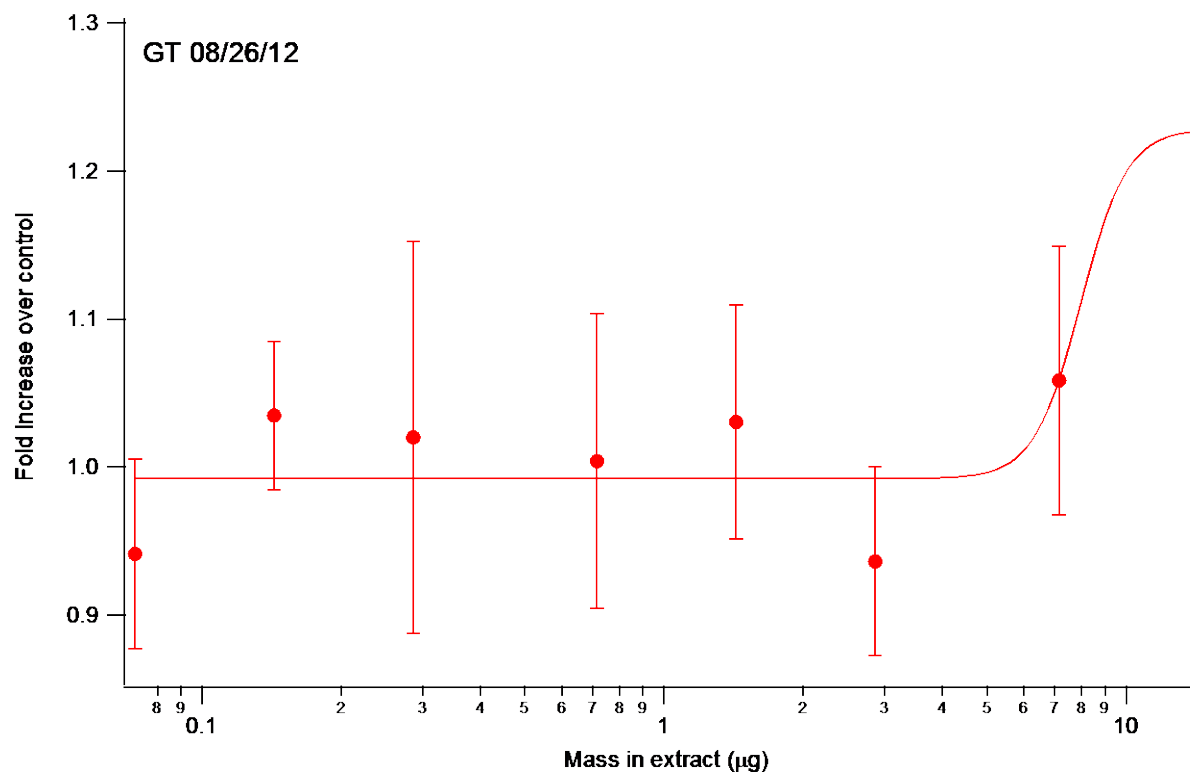


Figure D36. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: GT 08/26/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

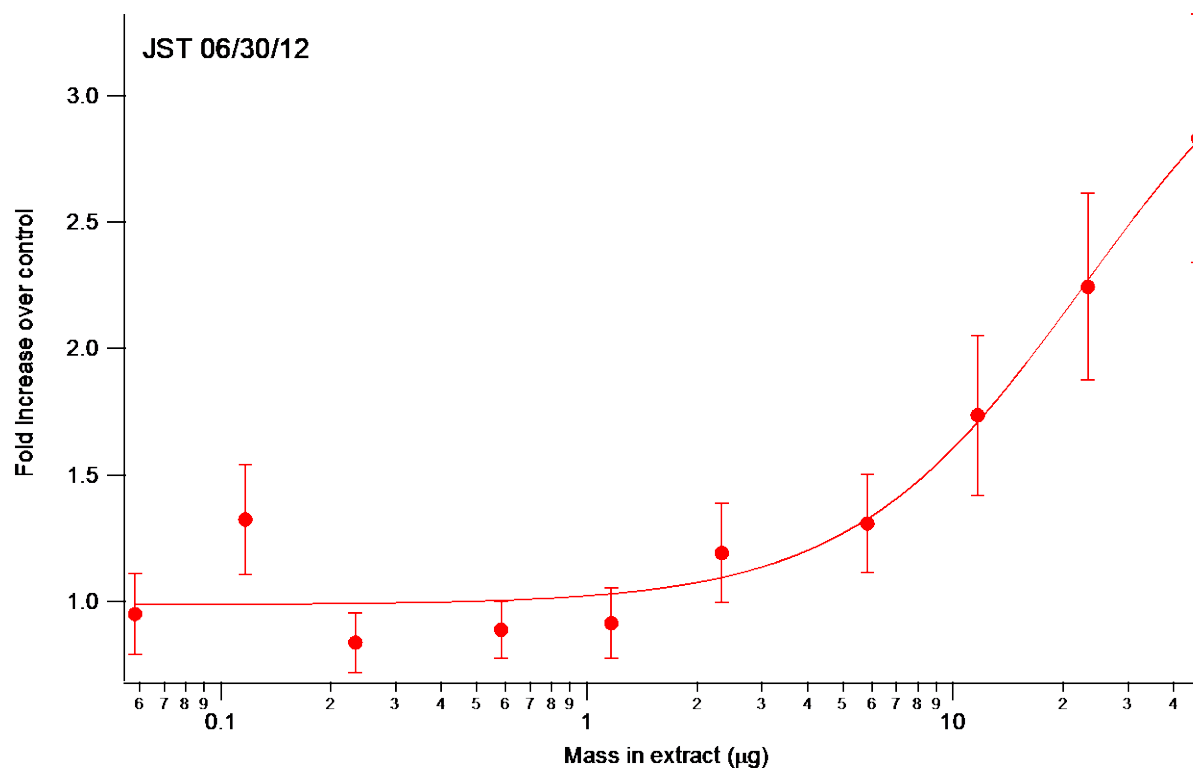


Figure D37. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 06/30/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

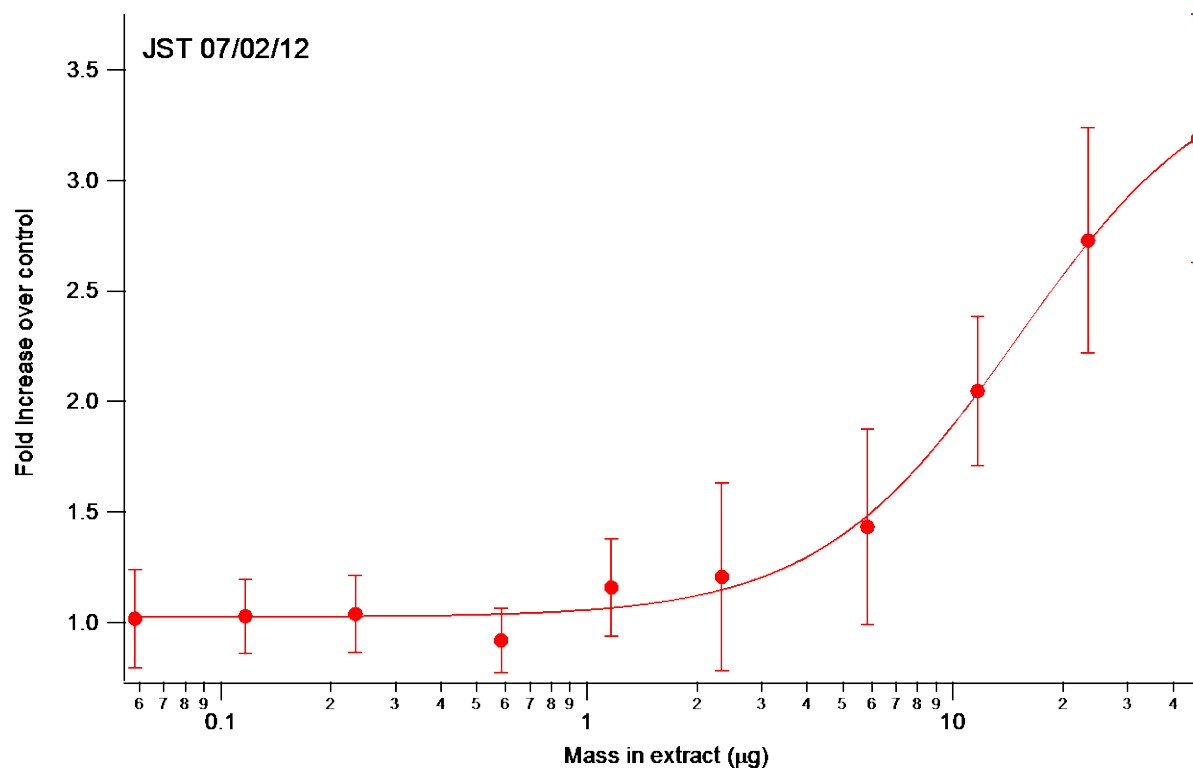


Figure D38. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 07/02/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

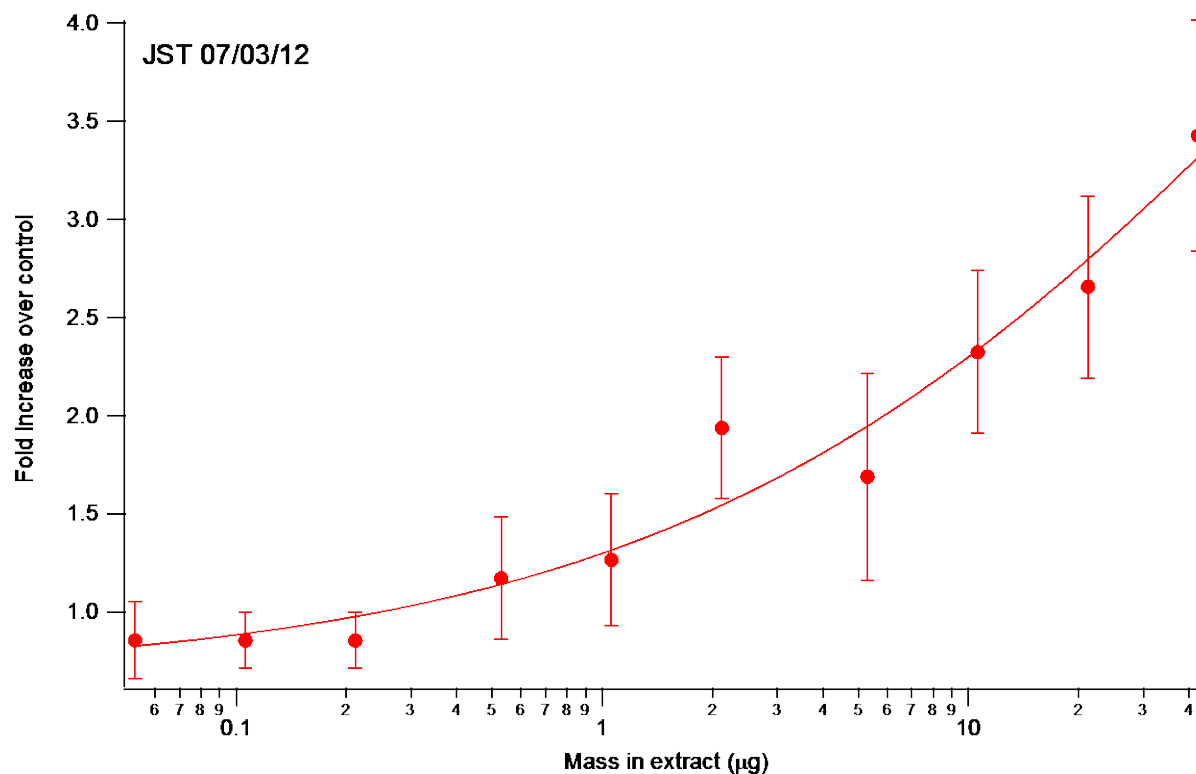


Figure D39. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 07/03/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

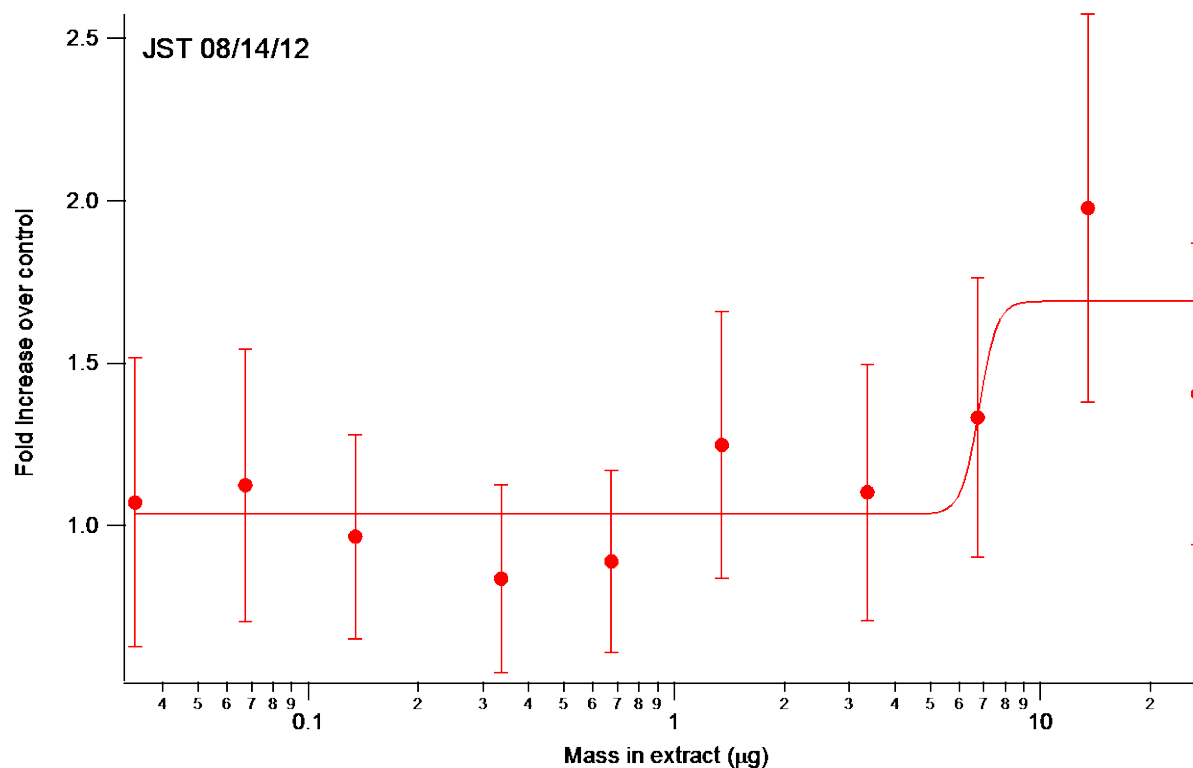


Figure D40. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 08/14/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

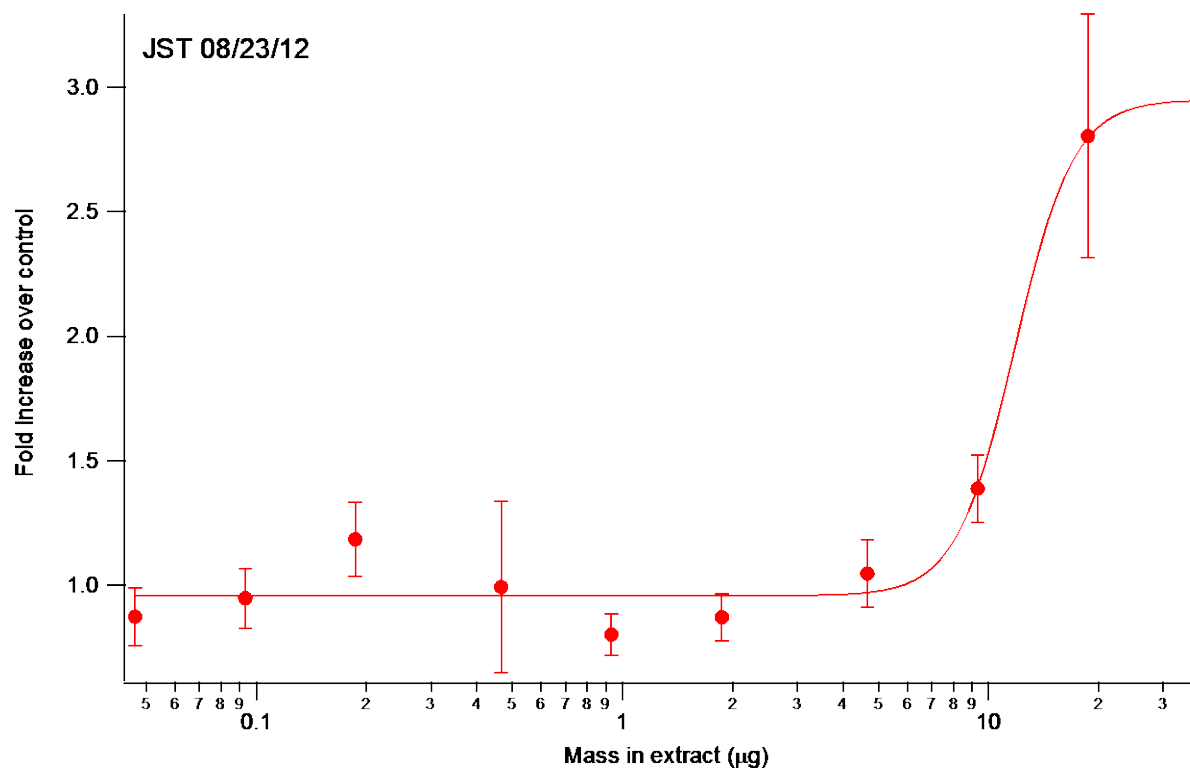


Figure D41. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 08/23/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in μg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

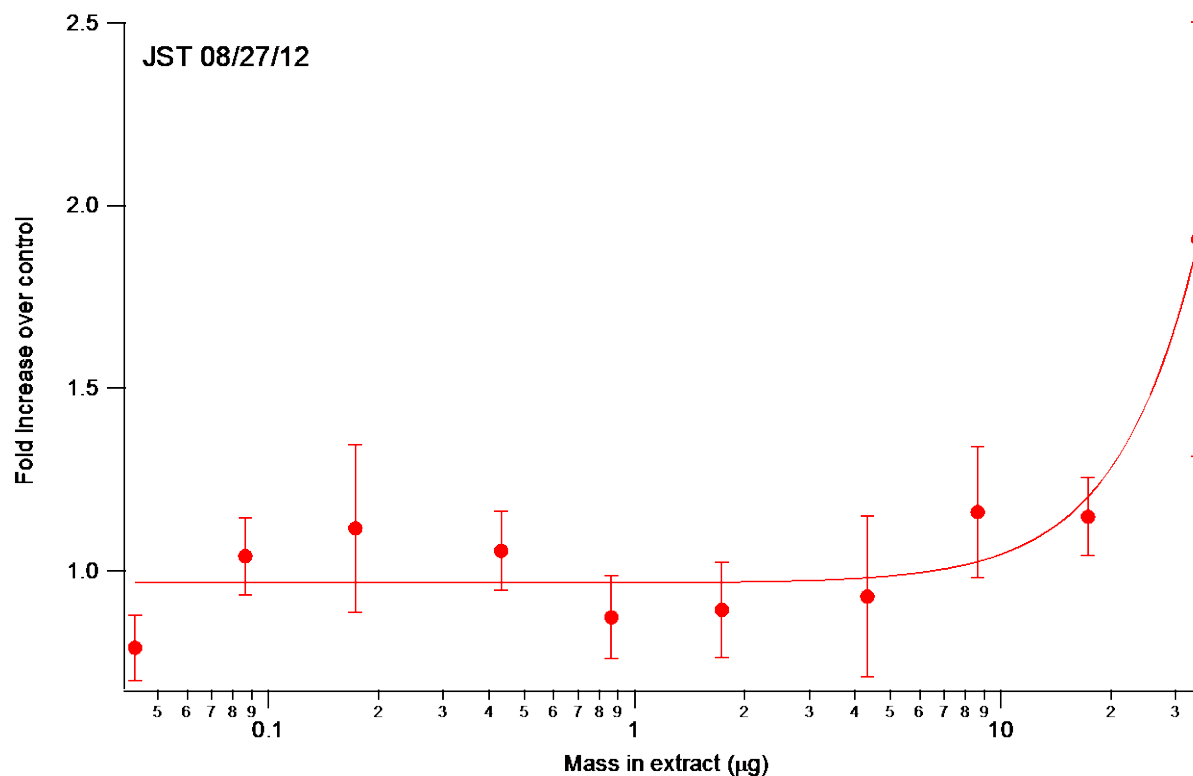


Figure D42. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 08/27/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

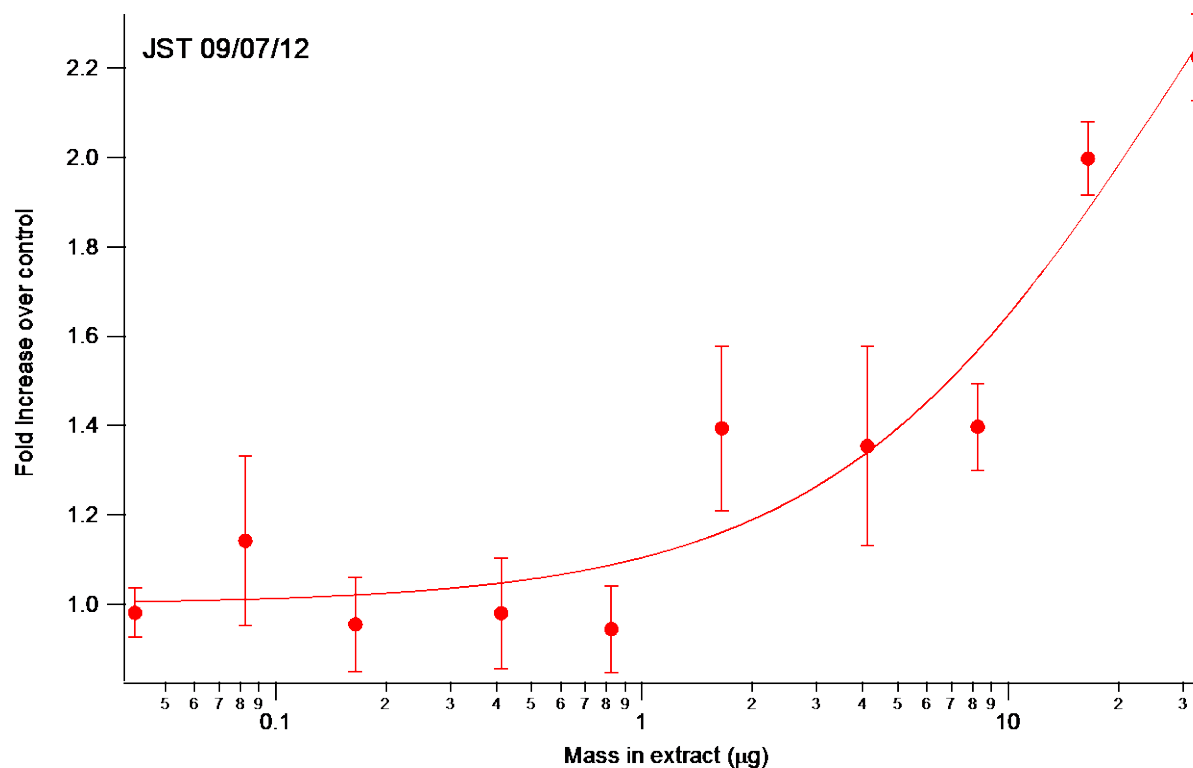


Figure D43. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 09/07/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

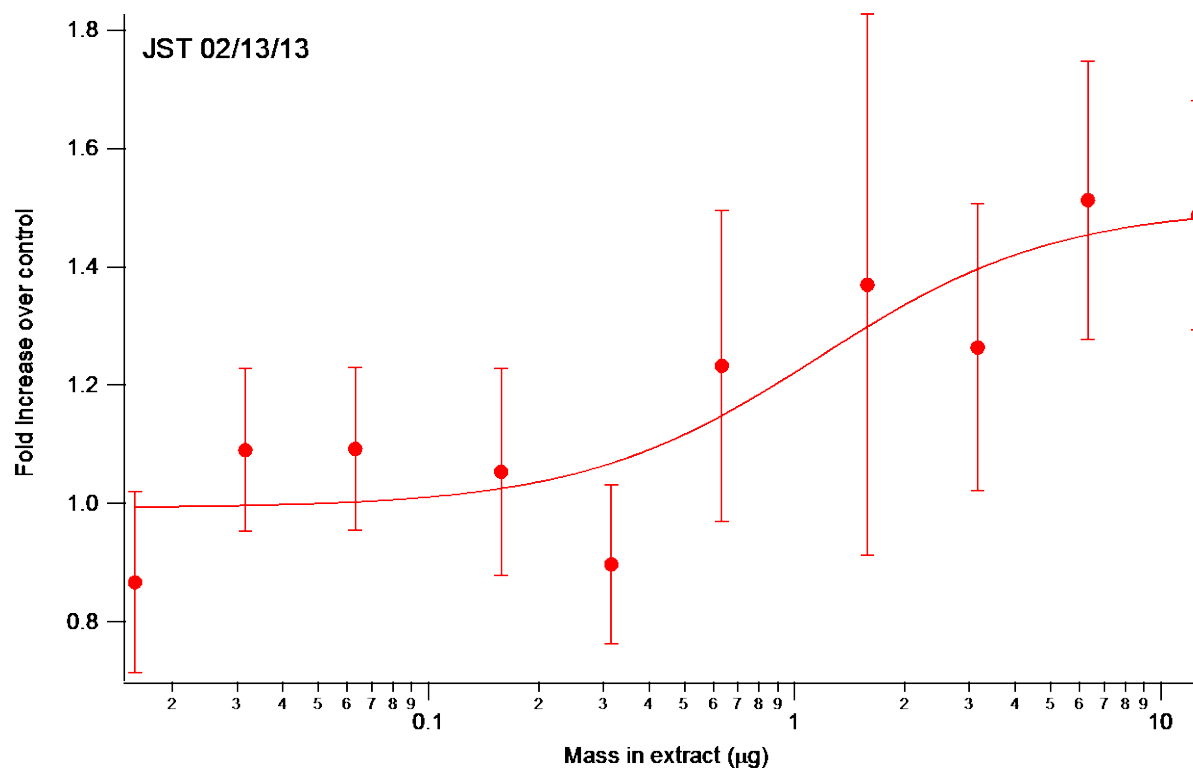


Figure D44. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 02/13/13). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

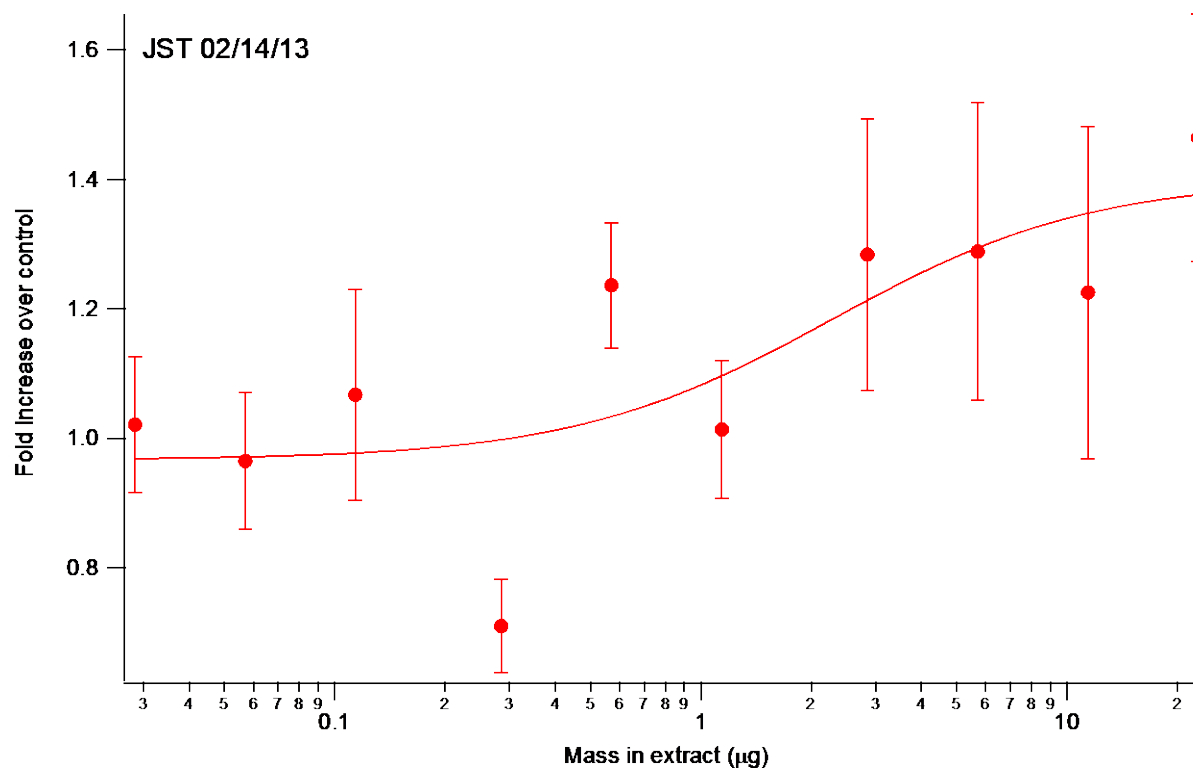


Figure D45. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 02/14/13). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

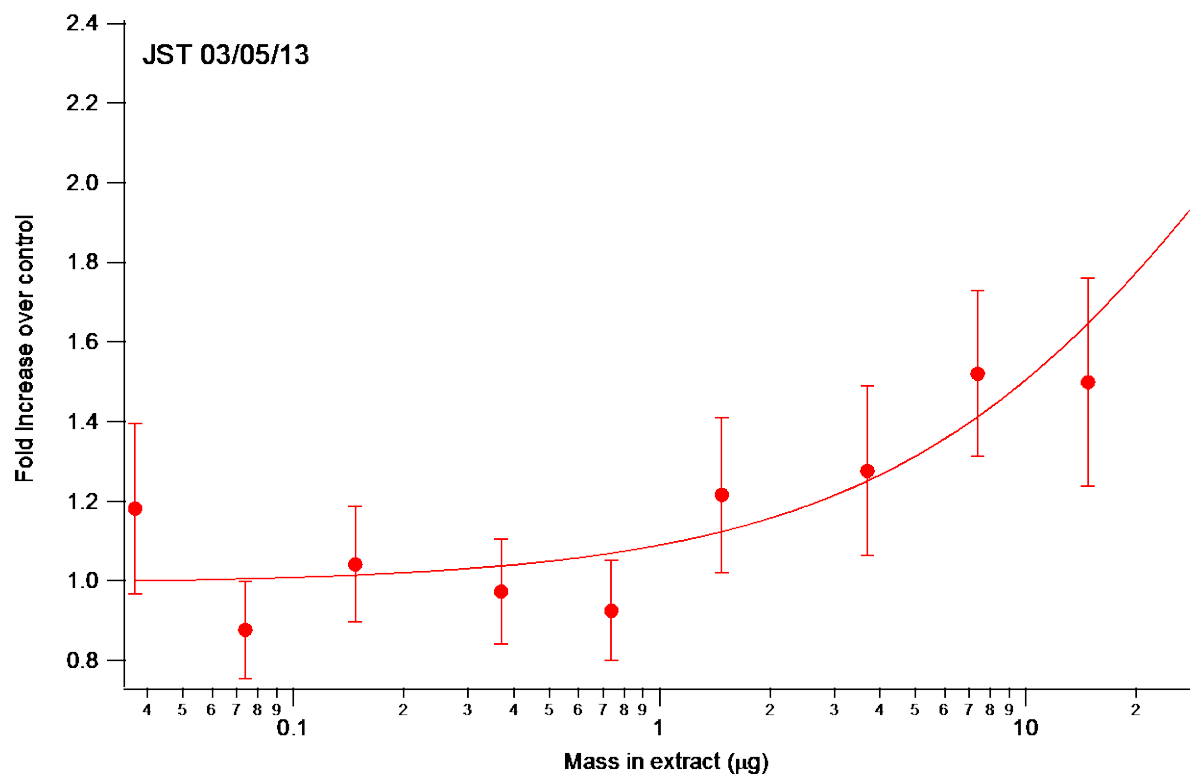


Figure D46. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 03/05/13). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

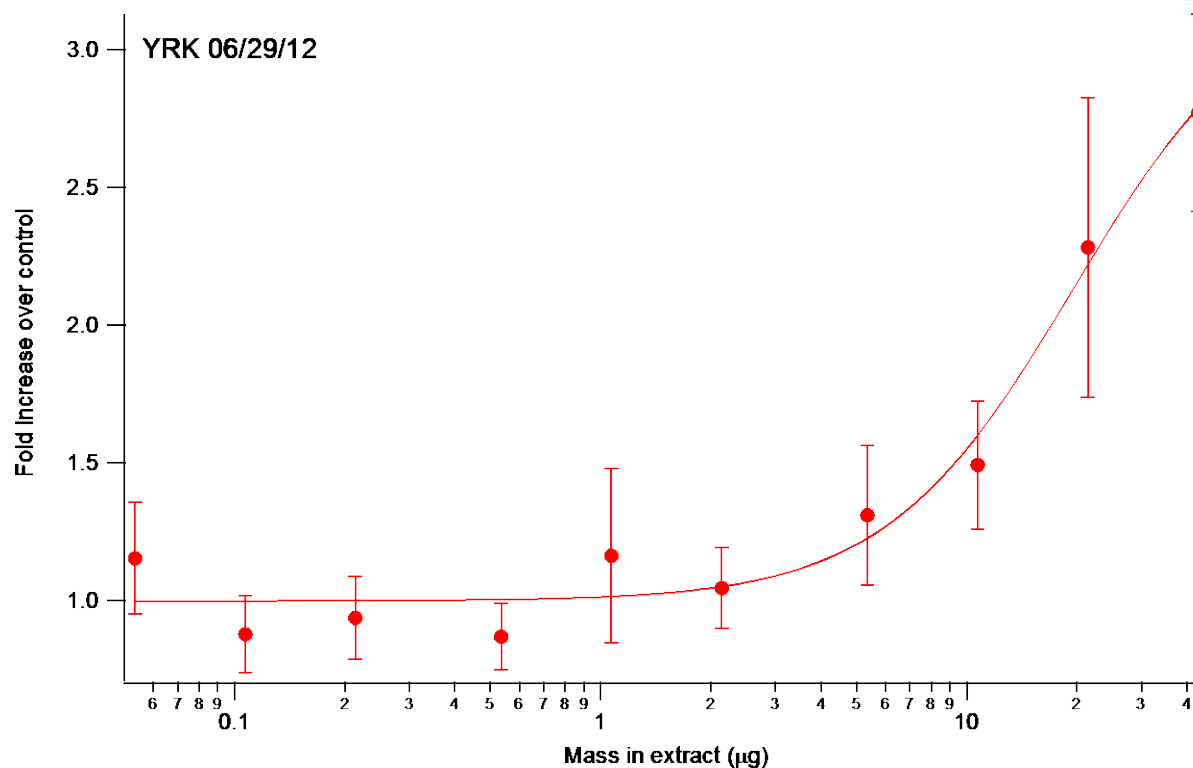


Figure D47. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 06/29/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

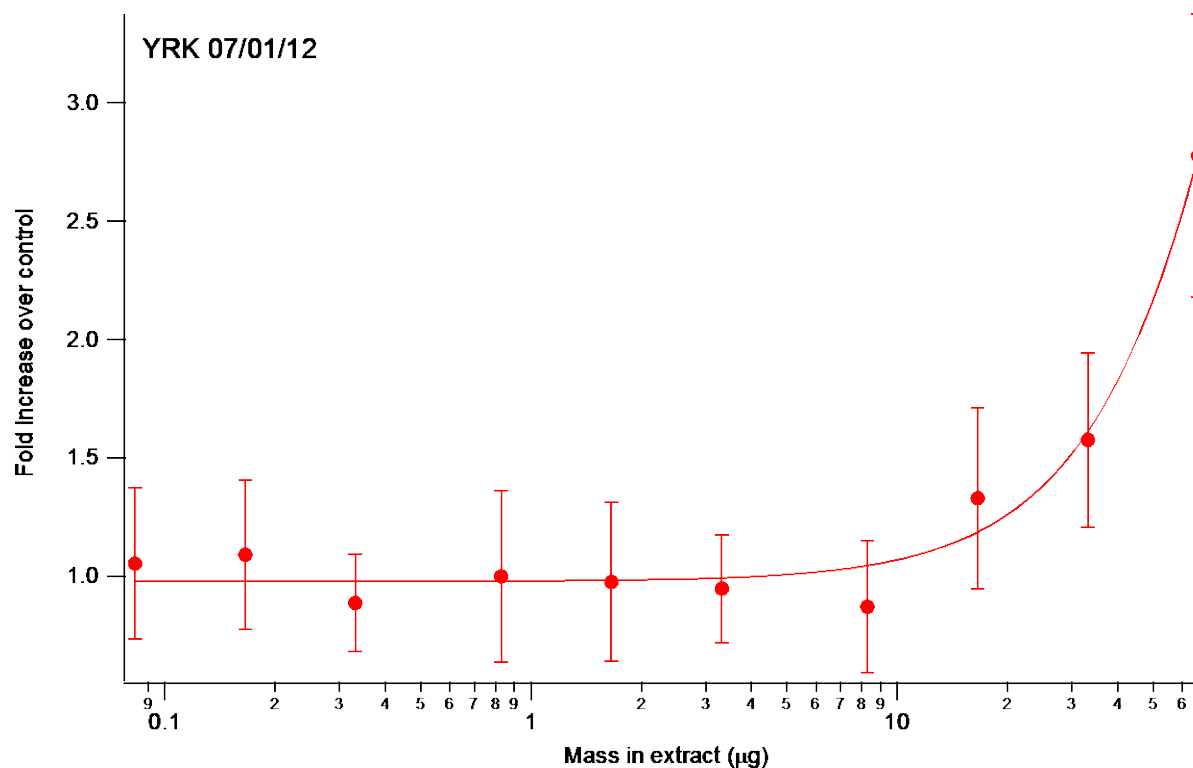


Figure D48. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 07/01/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

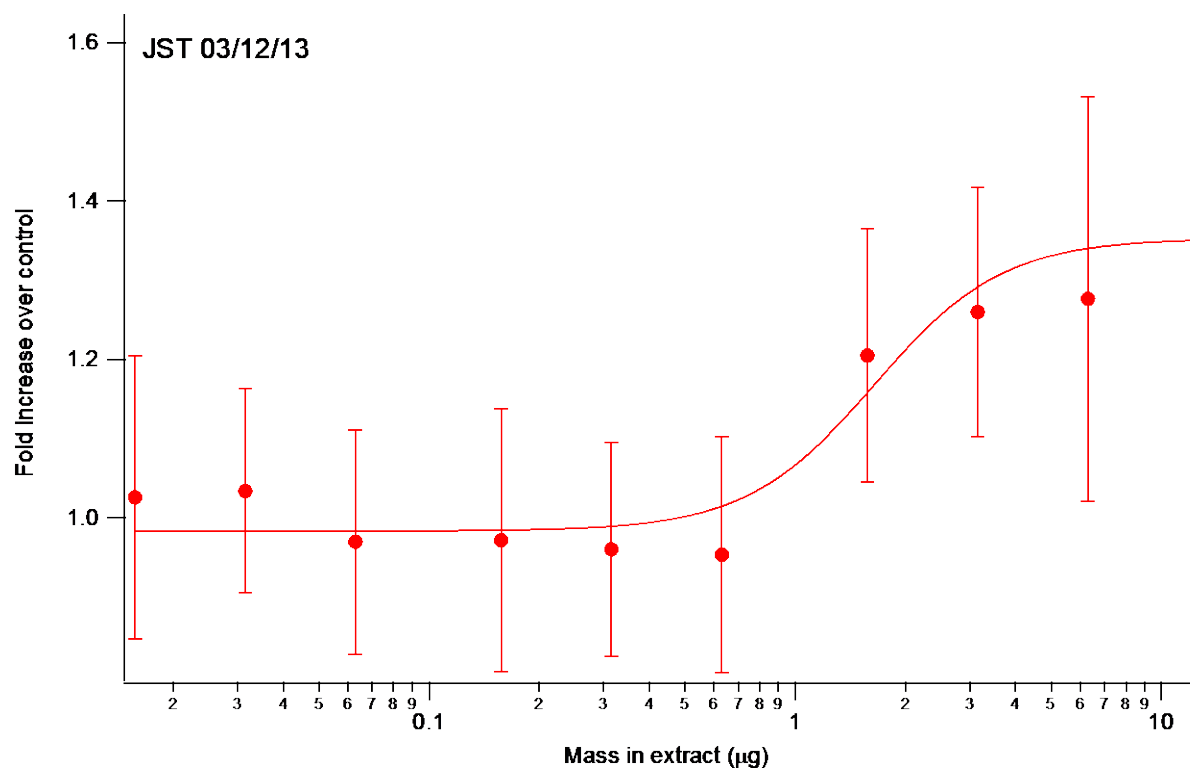


Figure D49. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 03/12/13). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

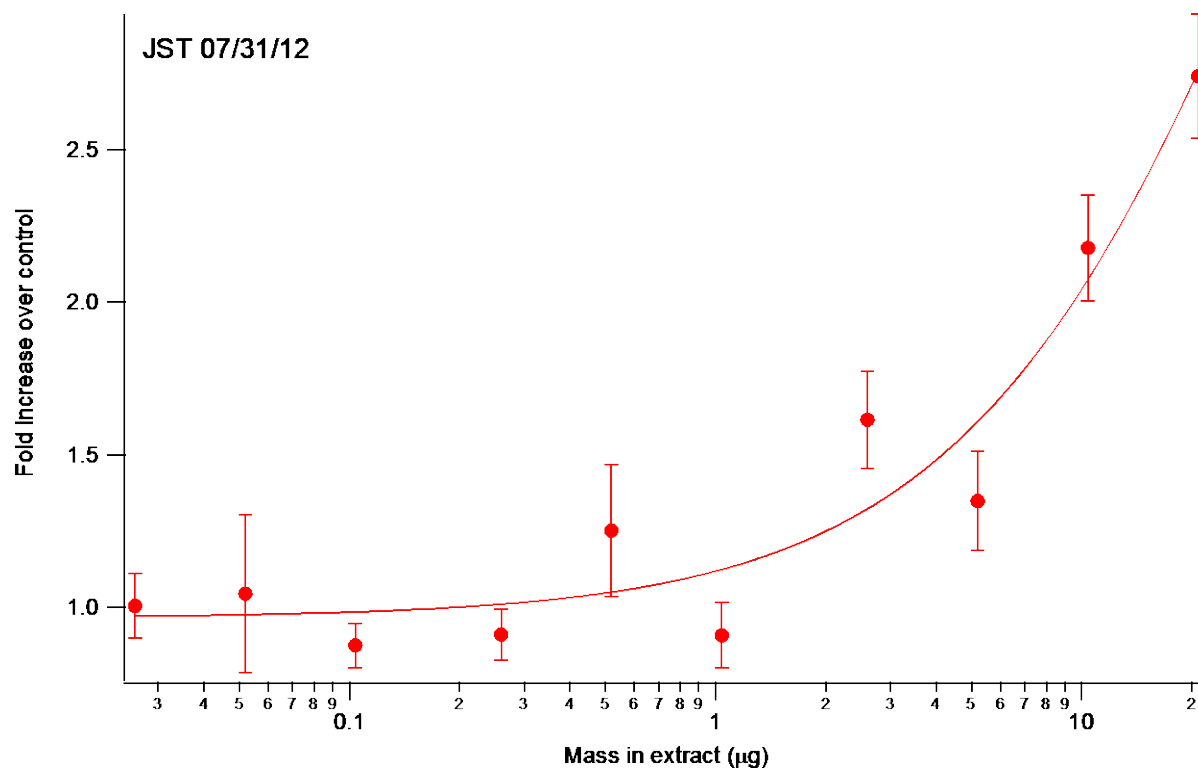


Figure D50. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 07/31/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in μg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

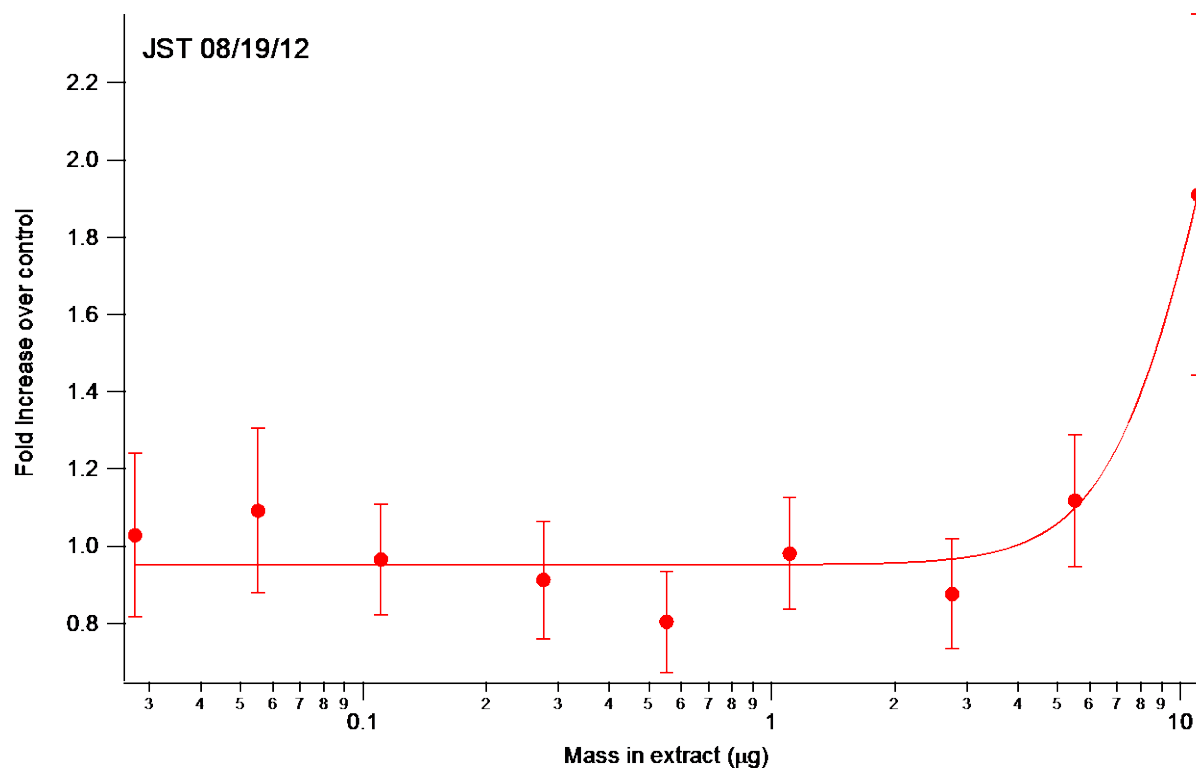


Figure D51. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 08/19/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in μg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

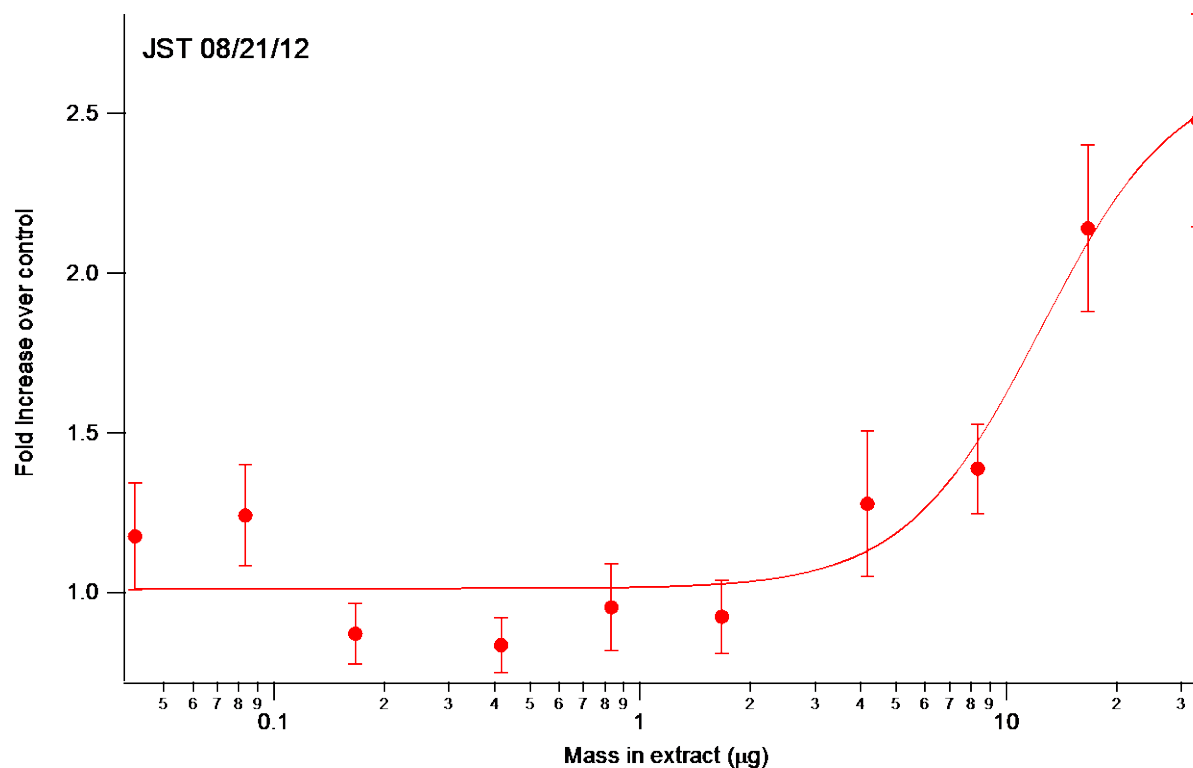


Figure D52. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 08/21/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

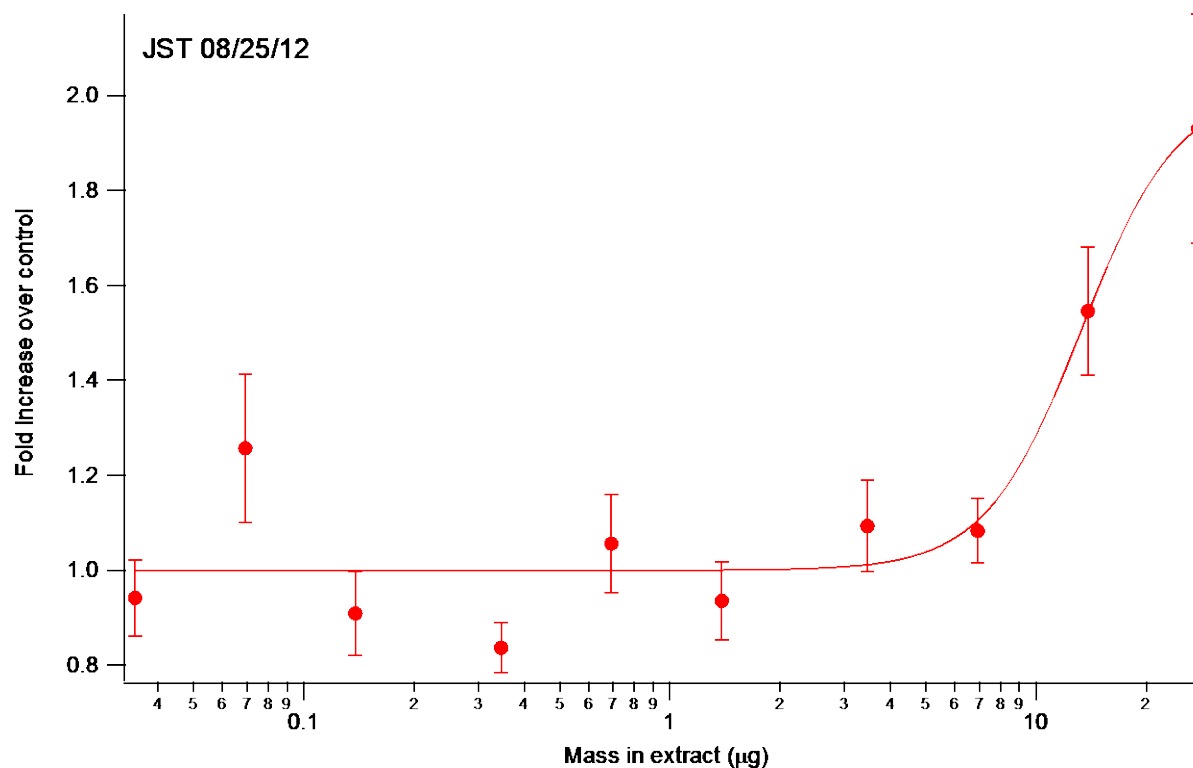


Figure D53. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 08/25/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

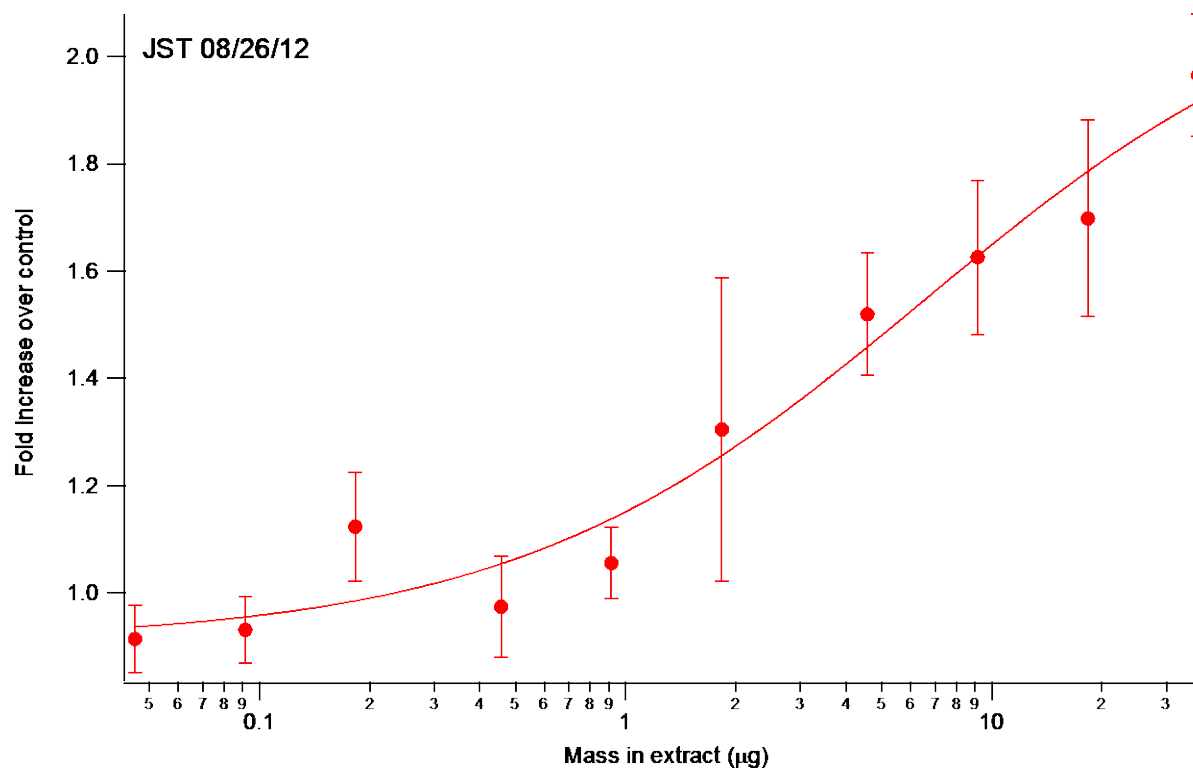


Figure D54. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 08/26/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

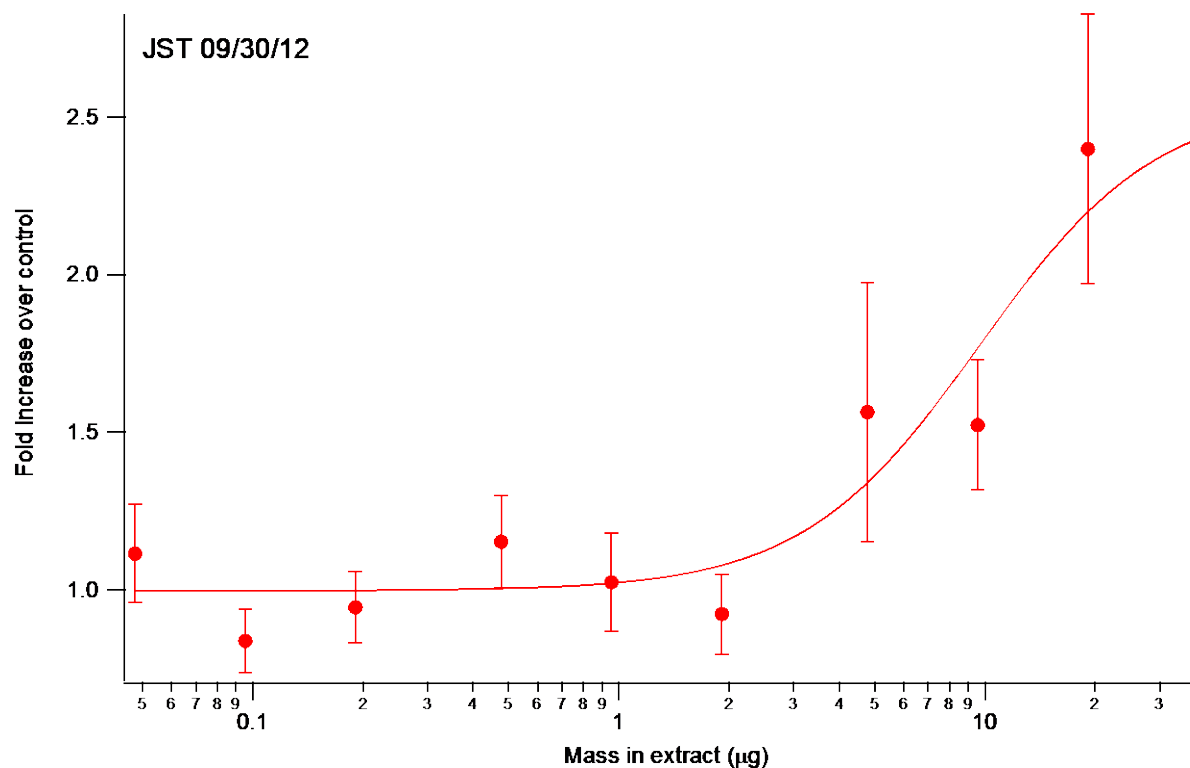


Figure D55. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 09/30/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in μg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

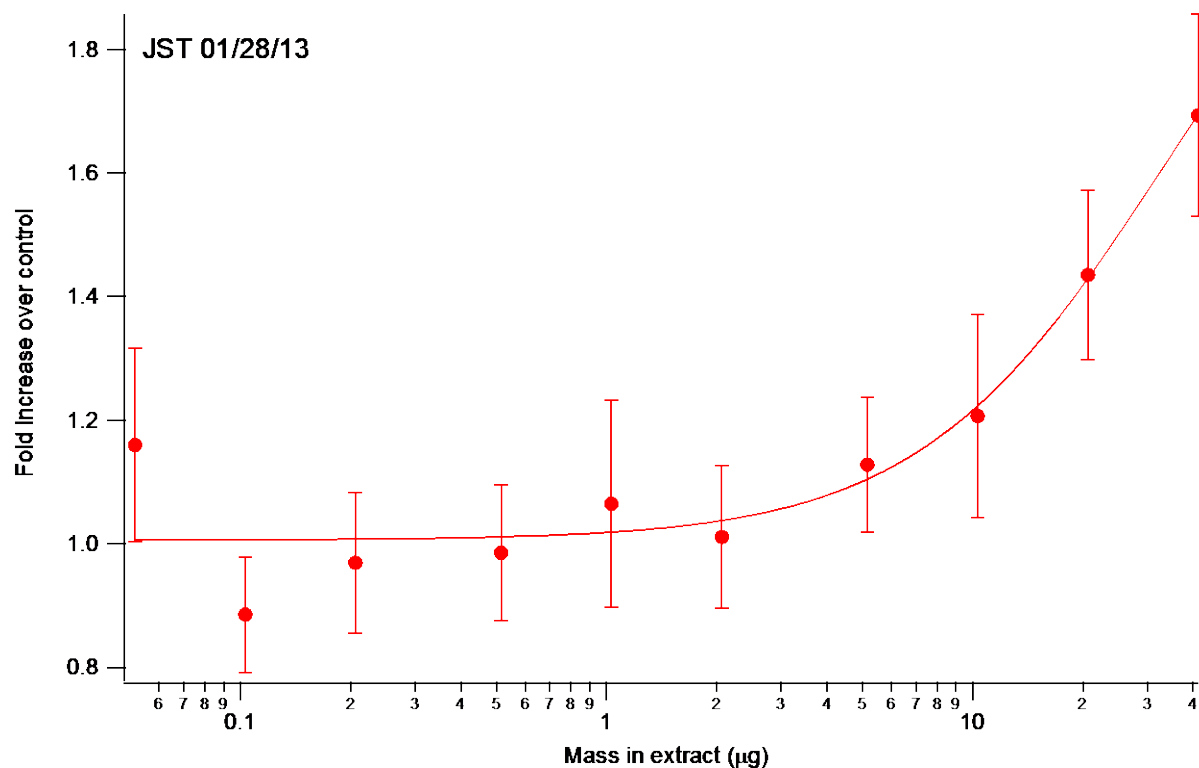


Figure D56. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 01/28/13). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

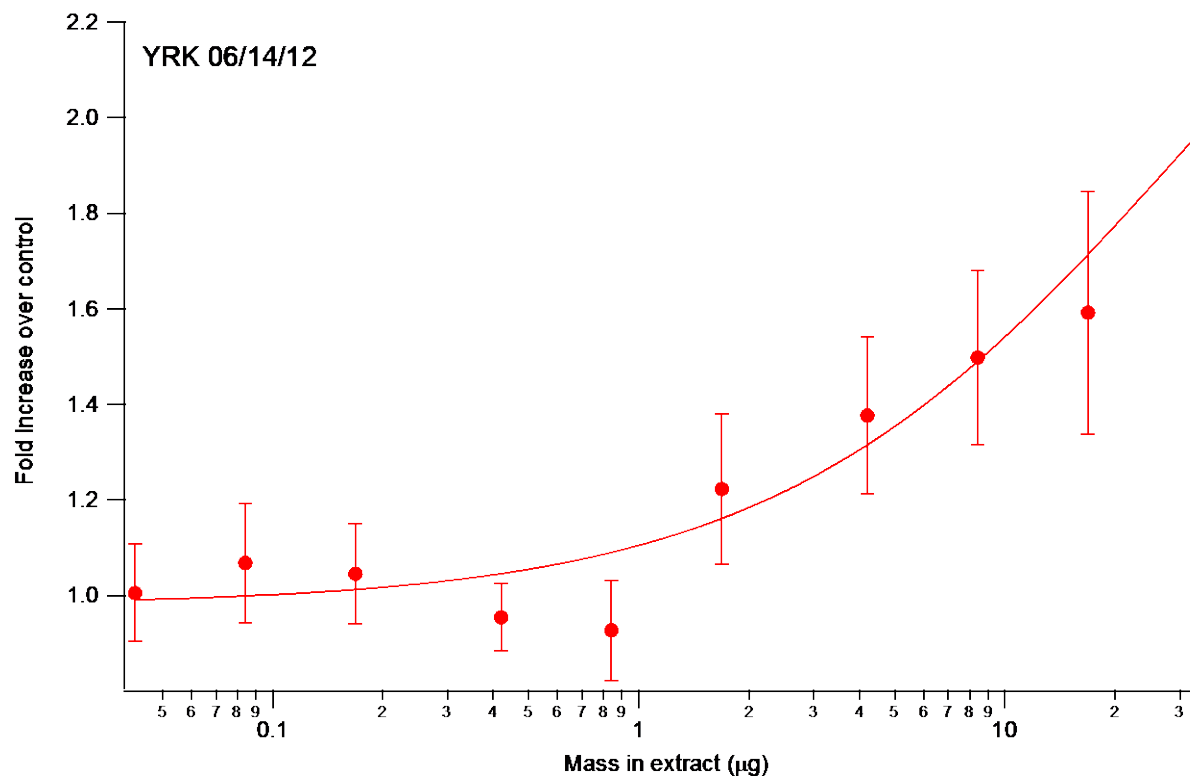


Figure D57. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 06/14/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

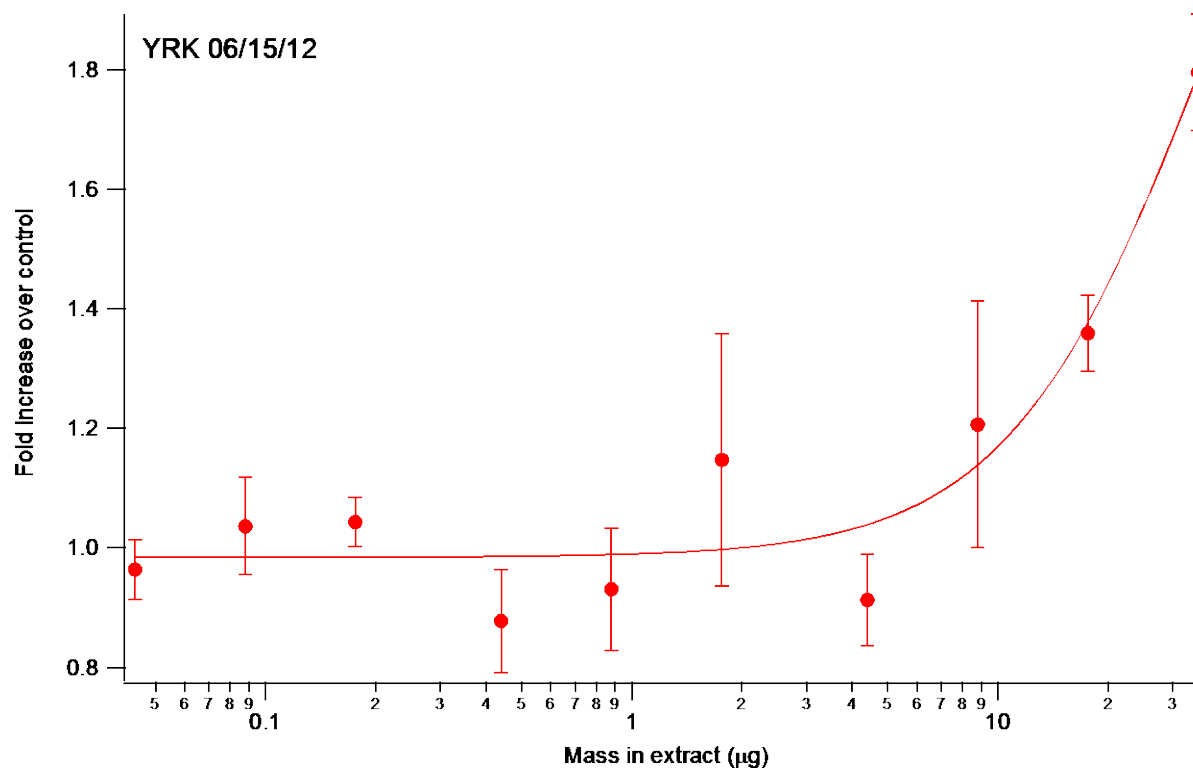


Figure D58. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 06/15/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

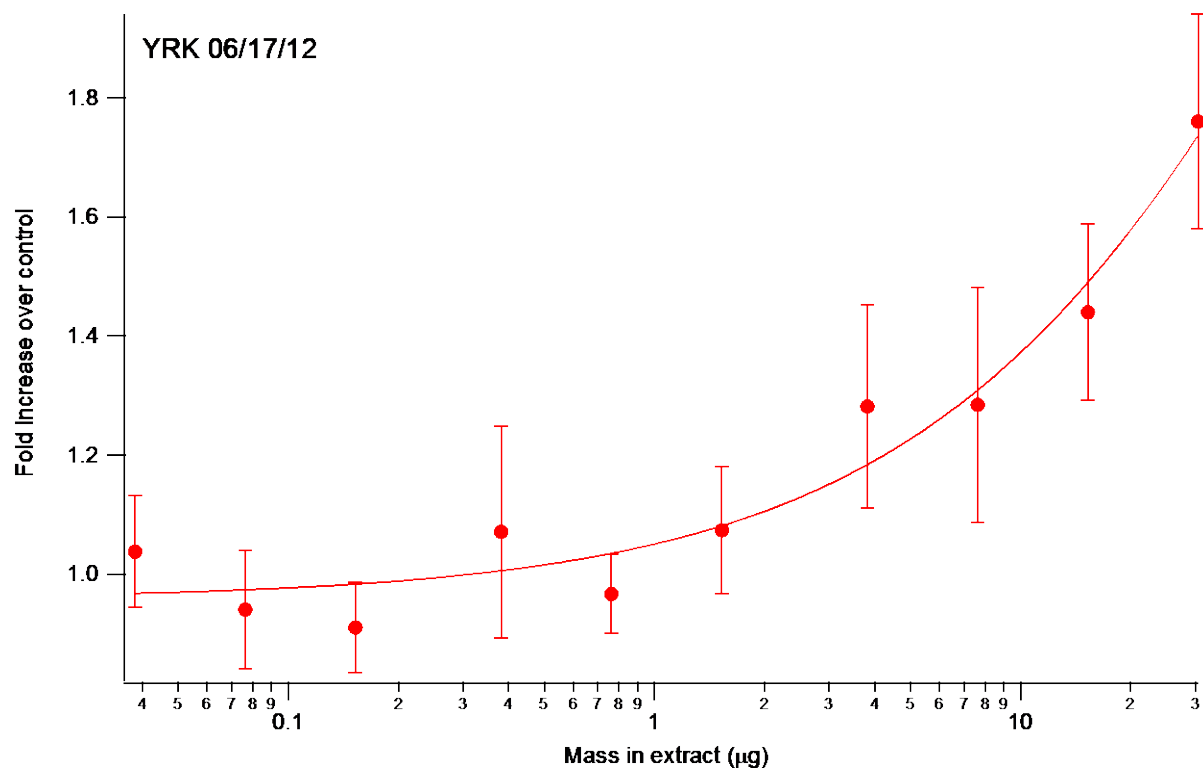


Figure D59. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 06/17/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in μg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

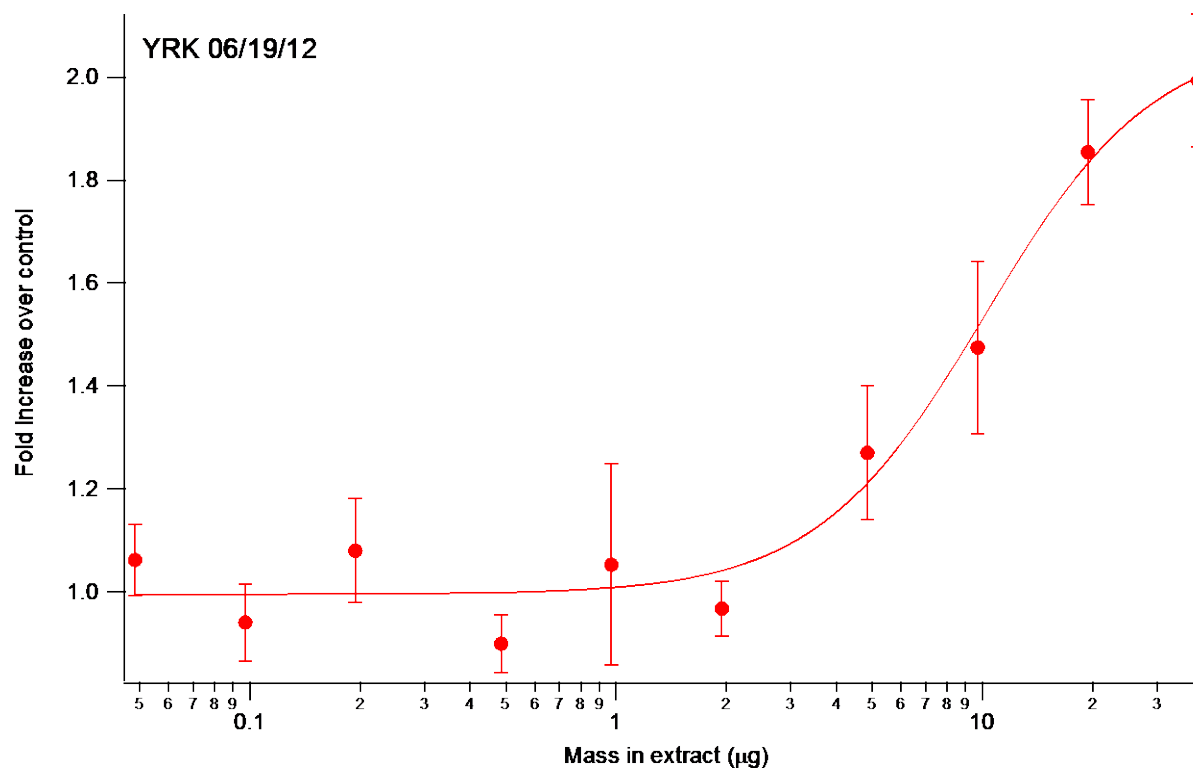


Figure D60. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 06/19/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

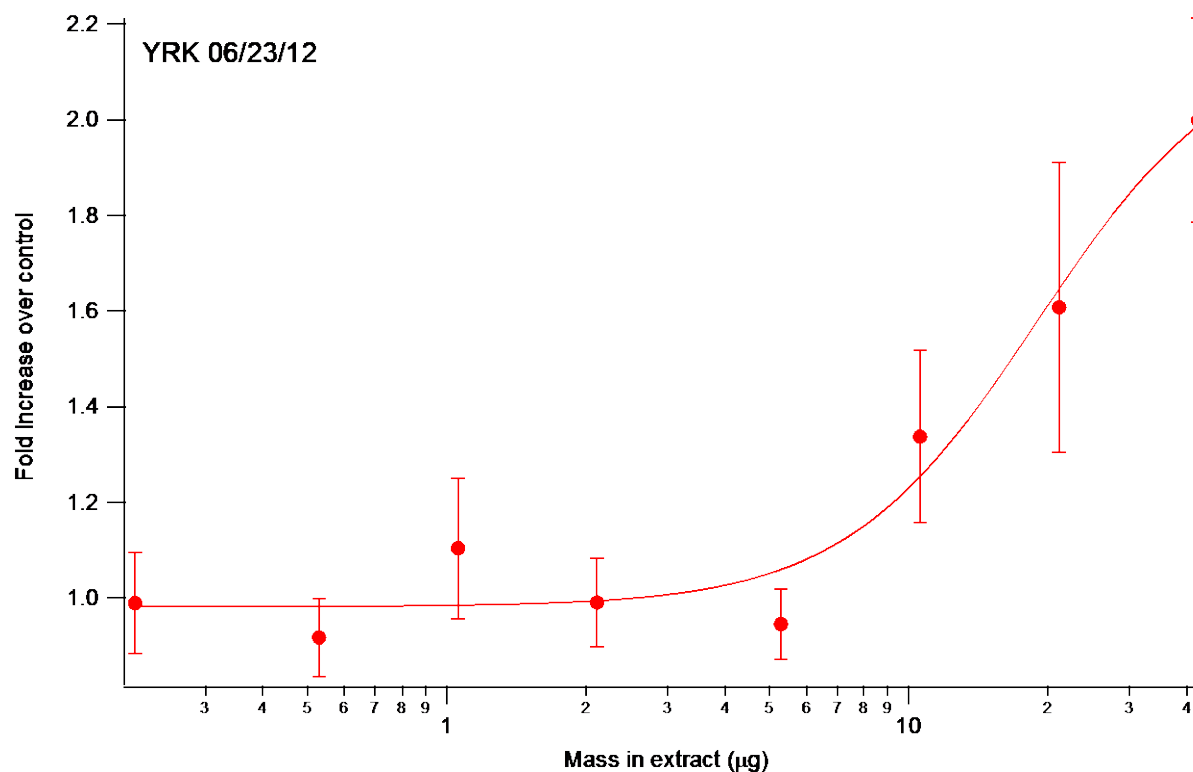


Figure D61. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 06/23/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

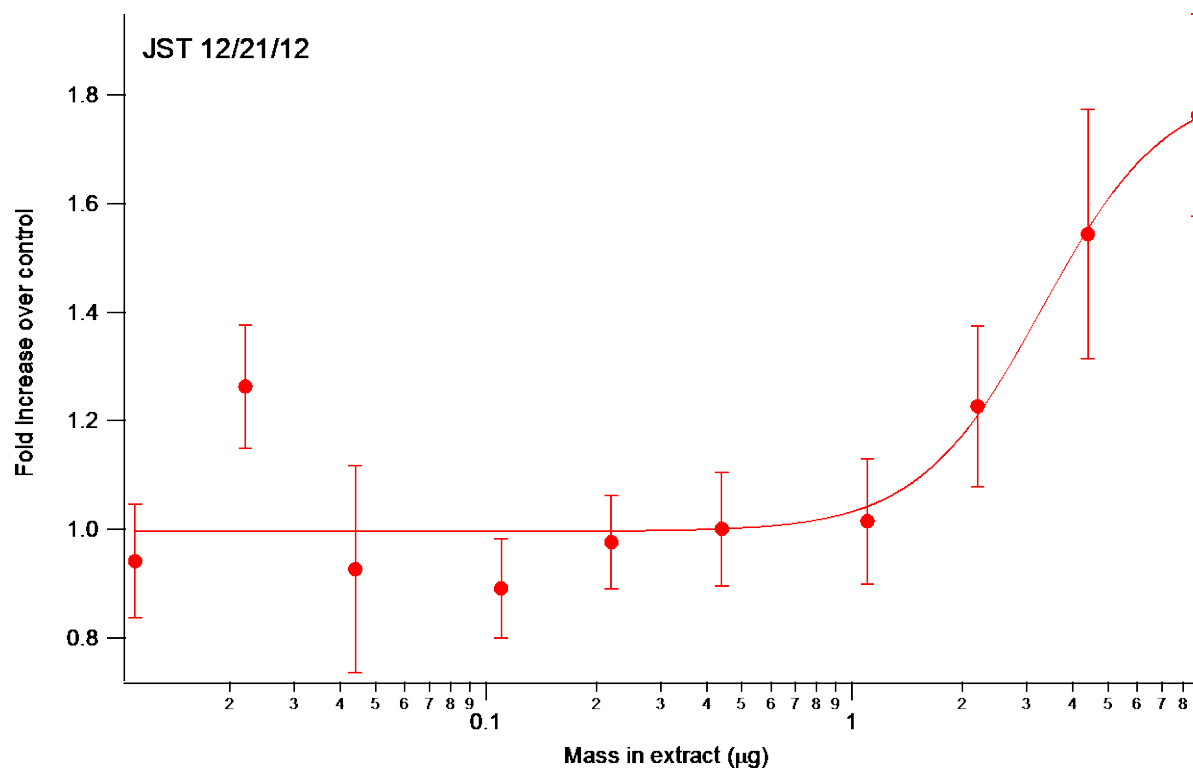


Figure D62. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 12/21/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

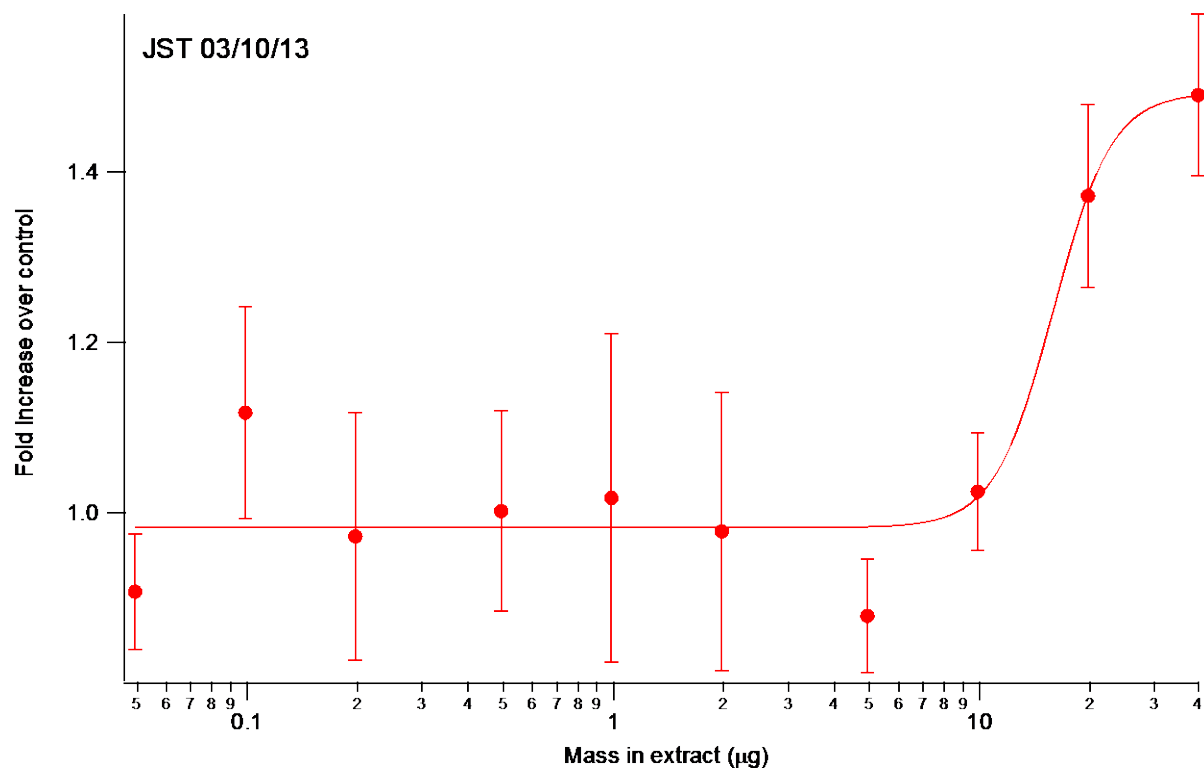


Figure D63. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 03/10/13). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

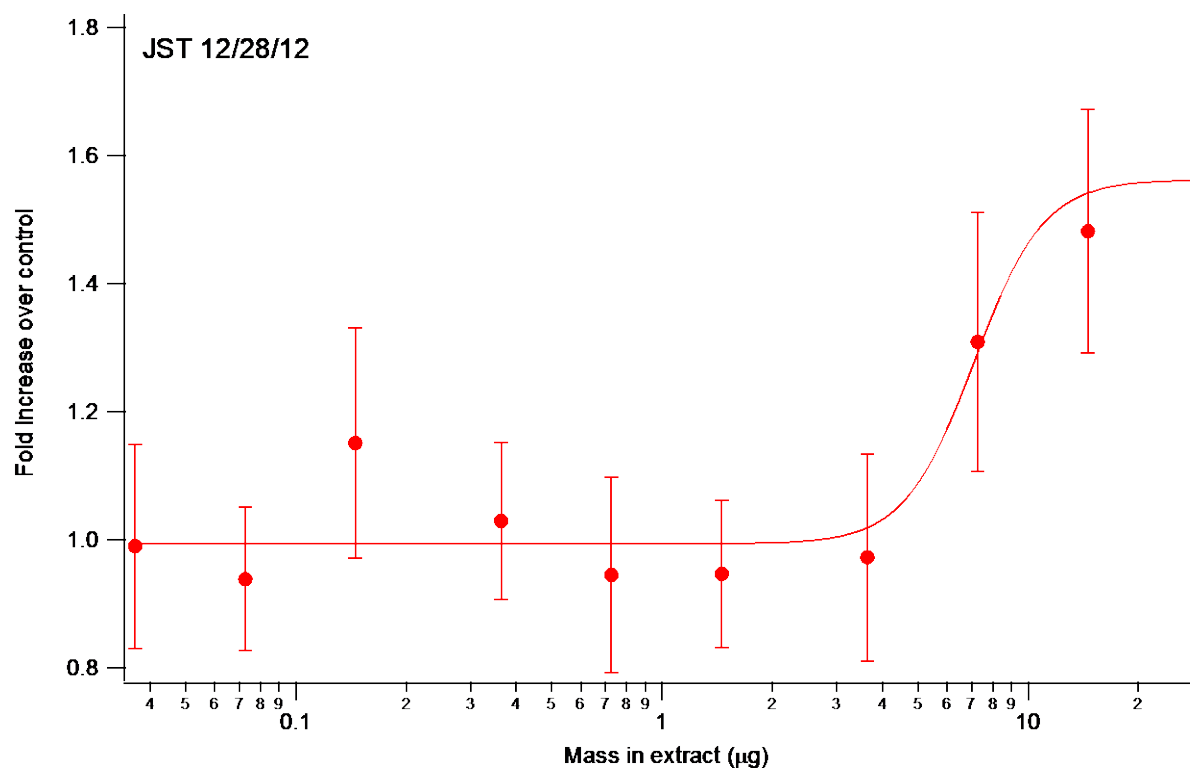


Figure D64. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 12/28/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in μg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

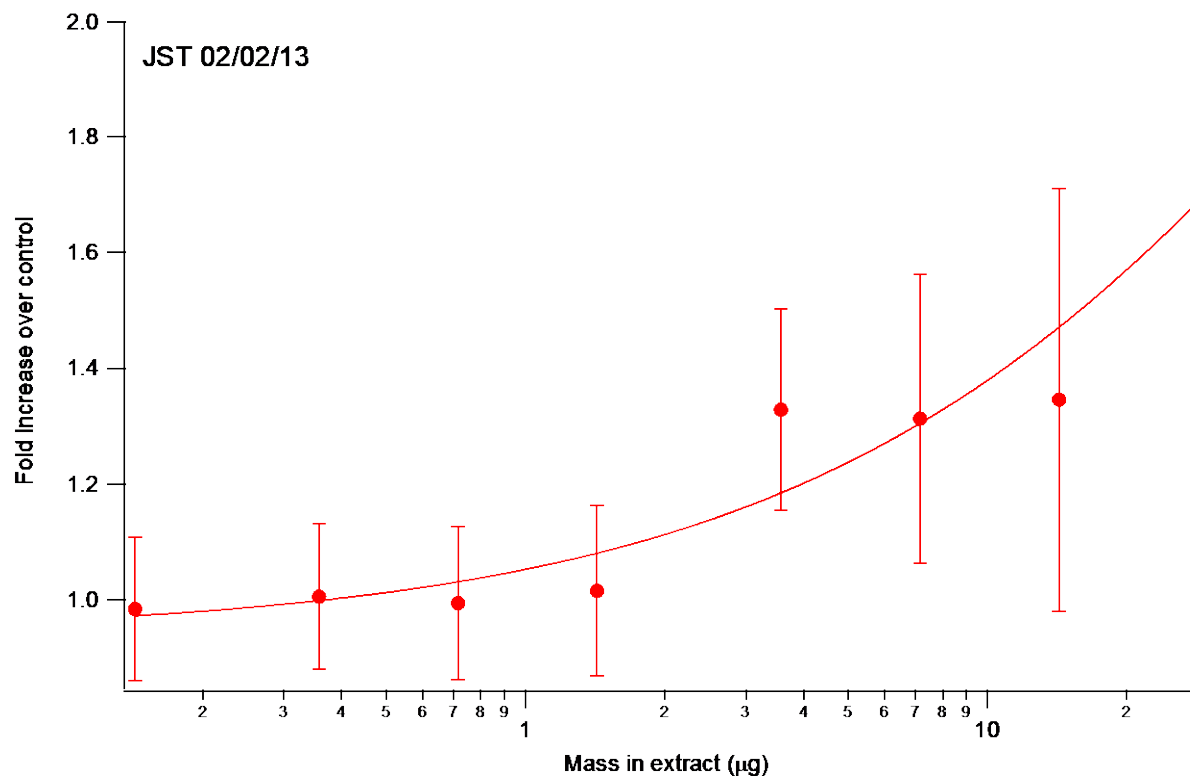


Figure D65. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 02/02/13). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

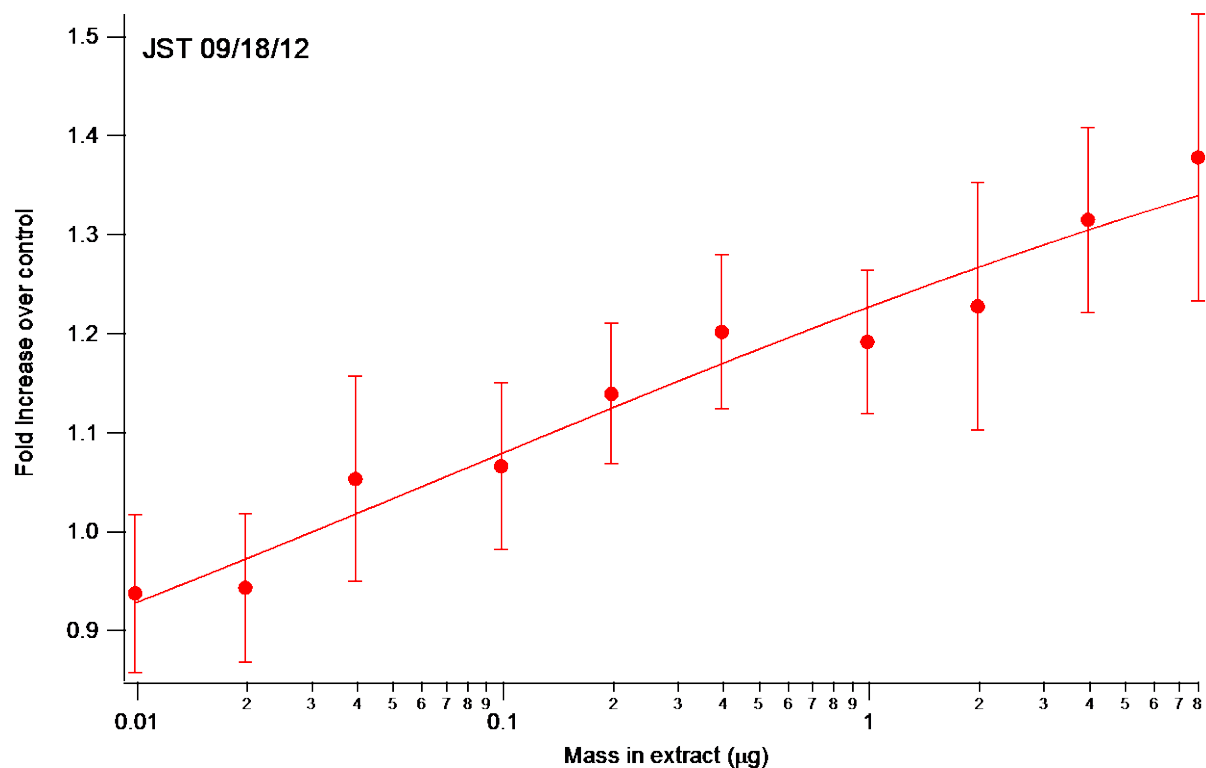


Figure D66. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 09/18/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

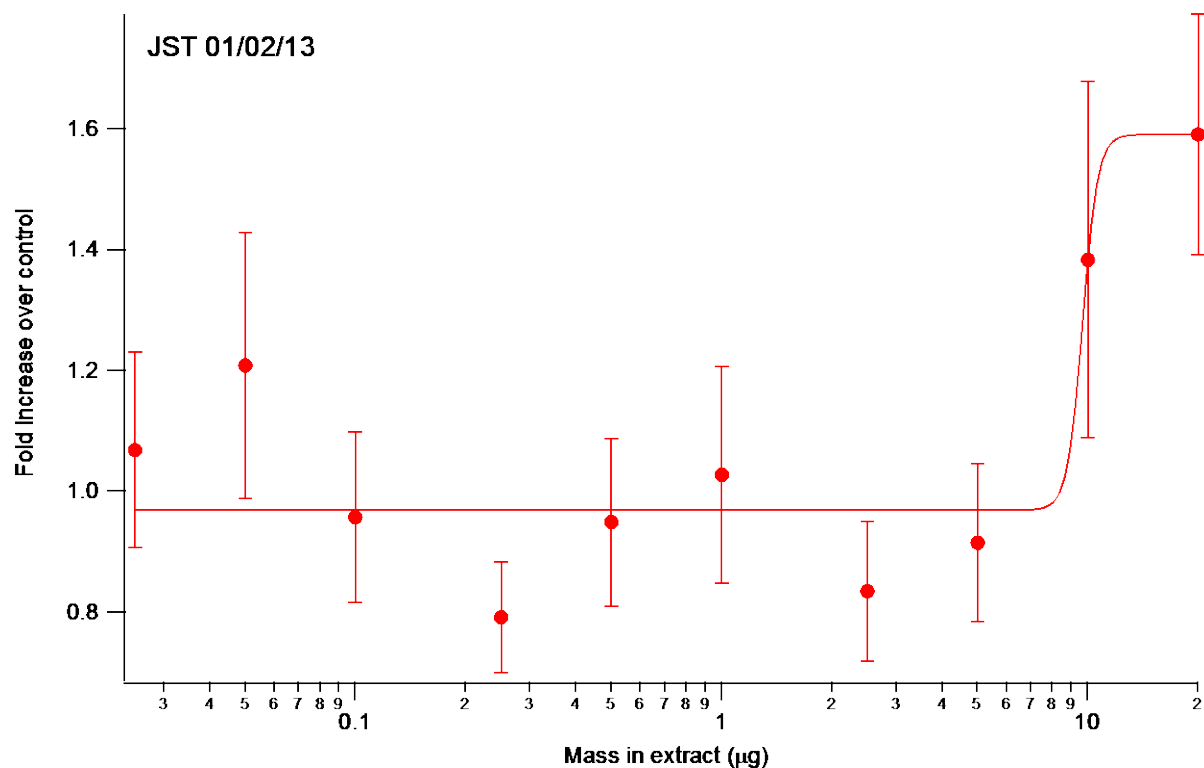


Figure D67. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 01/02/13). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

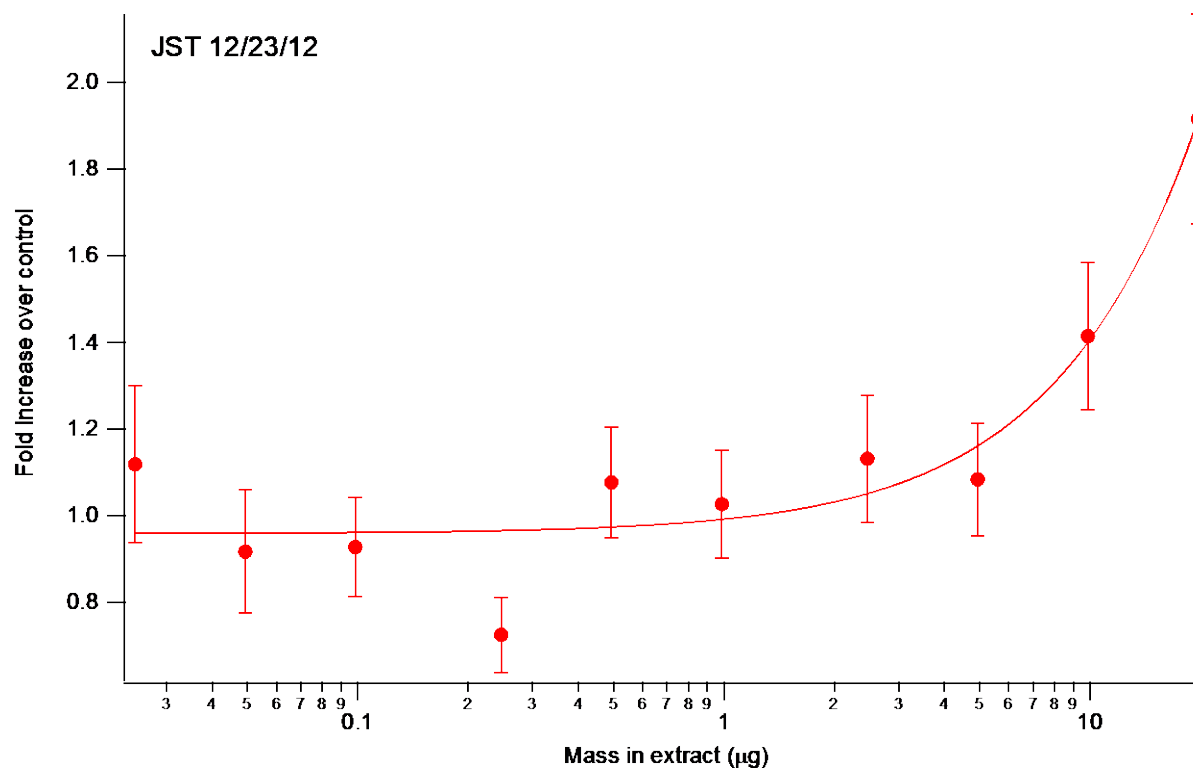


Figure D68. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 12/23/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

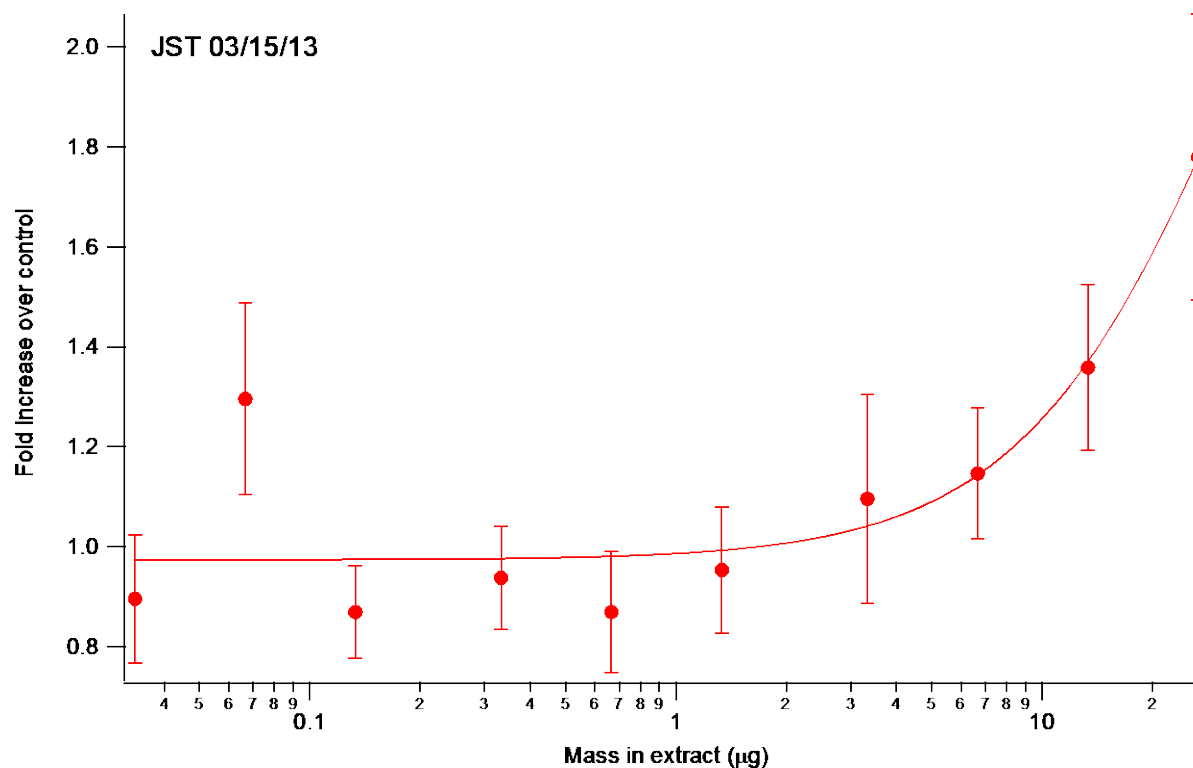


Figure D69. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 03/15/13). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

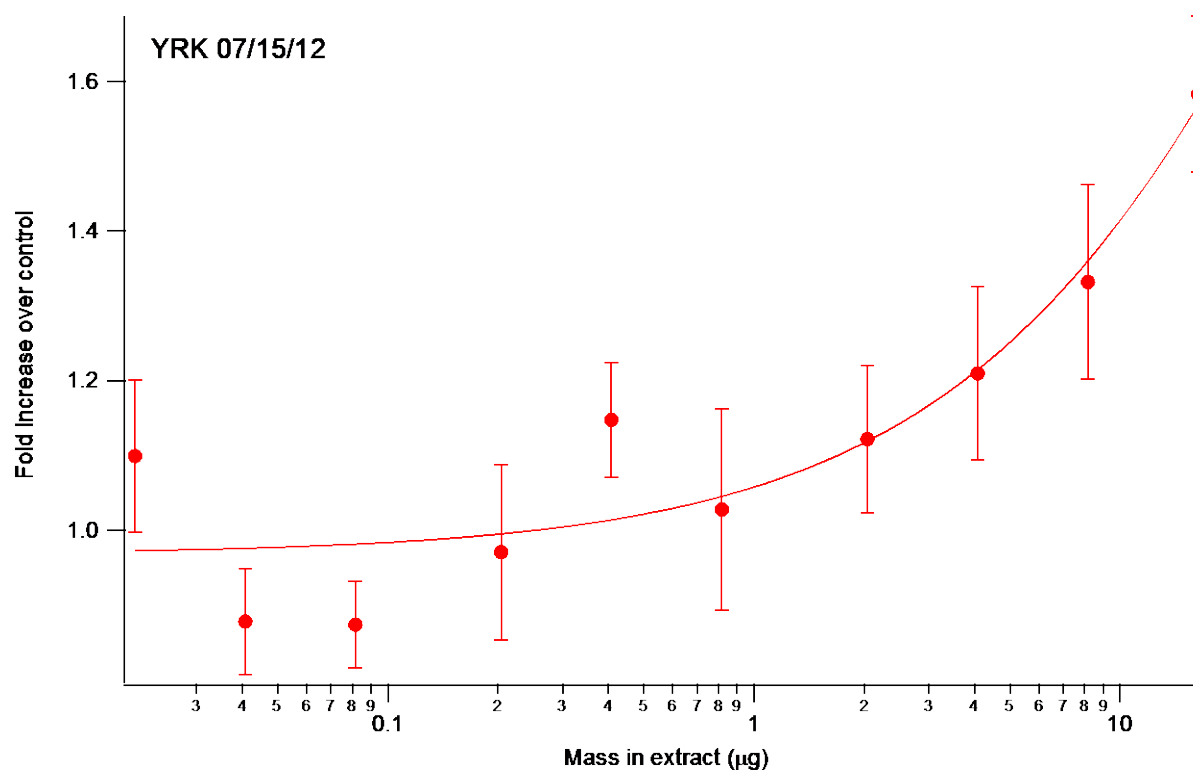


Figure D70. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 07/15/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

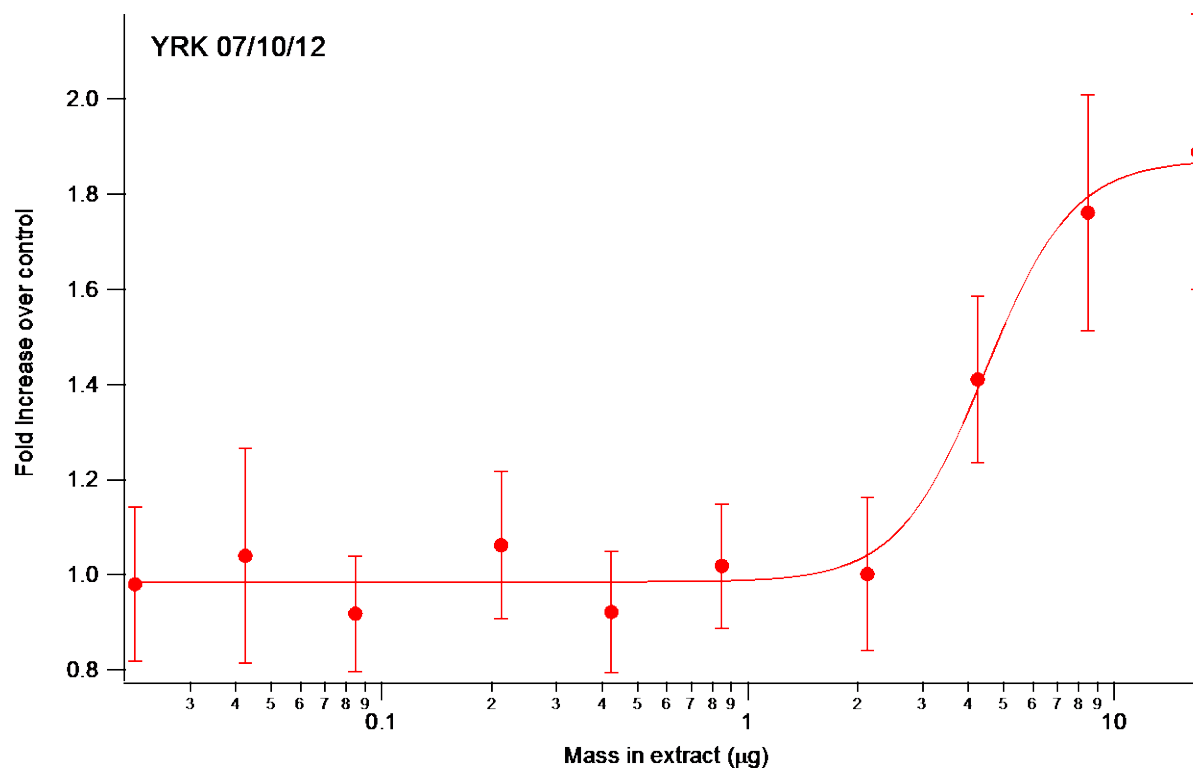


Figure D71. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 07/10/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using MH-S cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

Table D1. Dose-response metrics (maximum response, EC₅₀, Hill slope, threshold, and extrinsic/intrinsic AUC) for all ambient samples analyzed using alveolar macrophages (MH-S). Ambient samples are named according to collection site and collection date.

Site	Date	Maximum response	EC ₅₀	Hill slope	Threshold	AUC (m ³)	AUC (μg)
YRK	06/16/12	2.43	17.0	3.02	6.25	1.57	2.36
YRK	06/25/12	3.01	8.58	2.71	3.28	2.12	4.47
YRK	06/30/12	3.27	8.97	4.23	4.45	2.37	4.45
JST	07/01/12	12.8	94.8	1.13	6.11	3.52	2.54
JST	09/24/12	2.89	12.2	1.09	0.382	2.10	9.56
JST	03/13/13	2.19	6.30	1.82	1.66	1.53	5.63
JST	03/18/13	2.09	11.3	5.50	7.33	1.68	2.53
JST	03/26/13	1.59	6.02	4.29	4.14	1.39	3.43
JST	01/31/13	2.07	4.76	3.22	2.30	1.52	6.87
JST	10/02/12	1.81	0.511	1.73	0.191	4.85	6.50
RS	10/02/13	4.47	14.4	3.18	5.19	2.78	3.97
JST	12/09/12	1.82	14.2	2.44	7.62	1.37	2.05
JST	02/06/13	2.39	9.96	1.65	2.13	1.43	2.14
JST	03/09/13	1.76	12.8	4.36	8.74	1.34	2.32
GT	08/18/12	1.38	0.968	2.36	0.616	1.37	2.51
RS	10/03/13	1.65	4.52	1.40	1.30	1.49	2.06
JST	08/16/12	2.82	21.2	1.38	2.76	1.80	2.04
JST	09/15/12	1.72	3.74	12.9	3.26	1.62	2.79
JST	08/30/12	1.25	0.0686	2.36	0.0514	1.25	3.54
YRK	06/22/12	1.59	10.8	1.81	4.08	1.34	1.82
JST	06/30/12	3.51	22.8	1.37	2.19	2.13	2.13
JST	07/02/12	3.55	15.0	1.60	2.01	2.48	2.54
JST	08/14/12	1.69	6.79	18.1	6.19	1.45	2.52
JST	08/23/12	2.95	11.8	5.41	6.79	2.21	2.77
JST	02/14/13	1.40	2.28	1.22	0.823	1.32	2.69
YRK	06/29/12	3.26	19.5	1.69	3.17	2.01	2.19
JST	08/21/12	2.64	12.4	2.33	3.88	1.90	2.65
JST	08/25/12	2.01	13.3	3.30	6.81	1.46	2.45
JST	08/26/12	2.18	6.54	0.772	0.237	1.73	2.21
JST	09/30/12	2.55	9.66	1.79	2.16	1.93	2.36

YRK	06/19/12	2.08	10.2	1.88	3.01	1.70	2.04
YRK	06/23/12	2.18	19.0	2.09	5.97	1.60	1.77
JST	12/21/12	1.82	3.31	2.57	1.53	1.46	7.76
JST	03/10/13	1.49	15.9	5.43	12.2	1.27	1.50
JST	03/12/13	1.35	1.64	2.48	1.09	1.27	4.74
JST	12/28/12	1.56	7.11	4.57	5.06	1.40	2.25
JST	01/02/13	1.59	9.70	20.9	8.94	1.27	2.97
YRK	07/10/12	1.87	4.45	3.62	2.50	1.61	4.42
YRK	07/03/12	4.70	60.4	1.45	5.32	1.65	1.77
JST	07/15/12	65.7	824	1.05	1.93	1.42	3.49
JST	12/06/12	3.09	6.85	1.20	0.249	1.96	5.93
GT	08/29/12	1.62	5.27	1.05	0.112	1.29	5.07
JST	12/16/12	4.83	250	0.669	2.67	1.43	2.02
YRK	12/10/12	1.99	7.48	1.35	2.56	1.28	6.12
JST	08/02/12	3.32	6.37	14.9	5.47	2.60	2.60
JST	09/13/12	6.47	53.6	1.76	6.22	1.44	2.64
YRK	06/24/12	15.6	598	0.978	8.22	1.46	1.55
YRK	07/02/12	2.73	39.0	1.19	0.819	1.63	1.31
GT	08/27/12	1.97	13.2	0.384	0.0207	1.41	1.14
RS	09/30/13	1.36	4.52	22.8	4.33	1.28	3.29
JST	08/31/12	1	-	-	19.0	0	0
GT	08/31/12	1	-	-	19.4	0	0
GT	08/26/12	1.22	7.35	14.8	9.80	1.09	0.888
JST	07/03/12	7.36	100	0.490	0.00830	2.65	2.92
JST	08/27/12	37.9	211	2.02	13.0	1.23	1.67
JST	09/07/12	3.40	30.0	0.908	0.850	1.80	2.54
JST	02/13/13	1.50	1.16	1.34	0.404	1.39	5.13
JST	03/05/13	3.70	62.3	0.797	1.03	1.58	2.50
YRK	07/01/12	12.9	188	1.66	12.7	1.69	1.19
JST	07/31/12	6.59	47.2	0.929	0.605	2.01	4.51
JST	08/19/12	3.26	12.2	3.38	4.82	1.31	2.76
JST	01/28/13	2.21	33.0	1.30	6.85	1.40	1.58
YRK	06/14/12	2.90	31.3	0.772	0.711	1.66	2.31
YRK	06/15/12	2.68	37.4	1.59	6.60	1.36	1.81

YRK	06/17/12	3.93	133	0.703	1.06	1.45	2.22
JST	02/02/13	3.59	121	0.650	0.745	1.47	2.40
JST	09/18/12	1.59	0.0715	0.249	6.61×10^{-11}	1.28	7.60
JST	12/23/12	34.7	442	1.14	3.06	1.41	3.34
JST	03/15/13	3.12	38.4	1.40	4.37	1.36	2.38
YRK	07/15/12	3.46	73.4	0.765	1.36	1.36	3.90
JST	01/04/13	1	-	-	32.4	0	0

Table D2. Raw data for all ambient samples analyzed using alveolar macrophages (MH-S). Ambient samples are named according to collection site and collection date. Controls include: no probe (cells not treated with probe, exposed to media only), probe (probe-treated cells exposed to media only), blank filter extract, reference filter extract, LPS, and H₂O₂.

Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		982	1056	1007
Probe		3162	3141	2947
Blank		3375	3063	3280
Ref		9384	6606	5936
LPS		4909	4449	5491
H ₂ O ₂		5180	4218	5672
YRK 06/16/12	30.975	5628	8873	10319
	15.488	6093	6257	5493
	7.744	4035	3706	4341
	3.872	3682	3934	3484
	1.549	2496	4303	5317
	0.774	4767	3830	5823
	0.387	3840	6300	4998
	0.155	3117	3915	3301
	0.077	2852	3233	3552
	0.039	2715	3070	3907
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		982	1056	1007
Probe		3162	3141	2947
Blank		3375	3063	3280
Ref		9384	6606	5936
LPS		4909	4449	5491
H ₂ O ₂		5180	4218	5672
YRK 06/25/12	22.117	6994	7299	14412
	11.059	5379	5279	12809
	5.529	4161	5249	5448
	2.765	3146	4442	3398
	1.106	2800	4430	3230
	0.553	3042	6846	3804
	0.276	2987	4195	2916
	0.111	3508	4127	3294
	0.055	2632	3478	3278
	0.028	3050	2591	4034
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1038	1040	1033
Probe		2689	3015	2656
Blank		3354	2870	3205
Ref		5505	6836	9768
LPS		4211	3542	7328
H ₂ O ₂		4246	5063	5286

YRK 06/30/12	24.877	10951	10918	11510
	12.438	8668	7741	15096
	6.219	4717	4276	4748
	3.110	3306	4048	3390
	1.244	3359	3809	3184
	0.622	3544	2993	3363
	0.311	3208	3197	3043
	0.124	3428	3552	3254
	0.062	3215	4252	4207
	0.031	3392	2765	3563
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		958	1012	1047
Probe		3778	3822	5562
Blank		3914	5248	1751
Ref		8343	7086	5291
LPS		3861	3569	4371
H ₂ O ₂		6785	6106	8549
JST 07/01/12	64.602	18715	17466	16401
	32.301	14471	19023	11509
	16.151	6441	7177	7558
	8.075	6055	5246	4910
	3.230	3967	3556	3802
	1.615	2982	3908	3738
	0.808	3095	3051	3327
	0.323	3179	4050	3645
	0.162	2853	2656	2800
	0.081	2845	3696	2909
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1038	1040	1033
Probe		2689	3015	2656
Blank		3354	2870	3205
Ref		5505	6836	9768
LPS		4211	3542	7328
H ₂ O ₂		4246	5063	5286
YRK 07/03/12	43.571	9042	8241	8213
	21.786	6234	5361	5377
	10.893	4545	4597	4494
	5.446	3666	3690	4002
	2.179	3421	3357	3158
	1.089	3350	3324	3535
	0.545	3561	3414	3081
	0.218	3690	4047	3544
	0.109	3126	4574	3637
	0.054	2867	3504	3275
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		

No probe		958	1012	1047
Probe		3778	3822	5562
Blank		3914	5248	1751
Ref		8343	7086	5291
LPS		3861	3569	4371
H ₂ O ₂		6785	6106	8549
JST 09/24/12	10.249	8809	10742	9430
	5.124	8598	10171	8336
	2.562	9238	6853	7186
	1.281	4941	5109	6633
	0.512	5322	4871	3818
	0.256	4257	4470	3997
	0.128	3955	3501	6094
	0.051	3508	4163	3671
	0.026	3647	3296	4144
	0.013	3797	3400	3685
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1255	1295	1306
Probe		2878	3142	3130
Blank		3027	3052	3130
Ref		5189	5678	6040
LPS		4867	4695	5007
H ₂ O ₂		4535	6265	7717
JST 03/13/13	12.722	6063	7808	6220
	6.361	4877	5297	5962
	3.180	4043	4136	5259
	1.590	3378	3437	4496
	0.636	3237	2982	3366
	0.318	3568	3153	5757
	0.159	3577	3497	3174
	0.064	3609	2595	4276
	0.032	4329	3008	3644
	0.016	2433	2588	4460
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1255	1295	1306
Probe		2878	3142	3130
Blank		3027	3052	3130
Ref		5189	5678	6040
LPS		4867	4695	5007
H ₂ O ₂		4535	6265	7717
JST 03/18/13	30.959	6796	9968	7007
	15.479	6945	6854	5493
	7.740	3536	3757	3922
	3.870	3314	3592	3442
	1.548	3088	2967	3520

	0.774	3405	3338	3259
	0.387	3164	3555	5033
	0.155	5323	3420	3516
	0.077	3048	3270	3562
	0.039	3366	3412	3168
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1318	1262	1281
Probe		2449	2549	3294
Blank		3135	2822	3045
Ref		4984	5728	6099
LPS		6580	4358	4836
H ₂ O ₂		5243	4934	5437
JST 03/09/13	27.054	6643	7495	6437
	13.527	6017	4913	5673
	6.763	4022	4147	3704
	3.382	3722	3588	3355
	1.353	4306	3188	2988
	0.676	3408	3582	4366
	0.338	4250	3542	4834
	0.135	3372	3550	4645
	0.068	4844	4076	2996
	0.034	4000	3577	3987
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1239	1207	1219
Probe		2369	2553	2451
Blank		2751	2880	2975
Ref		4769	5366	5844
LPS		3824	3986	4158
H ₂ O ₂		4794	5354	6252
JST 07/15/12	18.952	6020	6516	7641
	9.476	4659	4262	4785
	4.738	4138	3566	4261
	2.369	3289	2734	4607
	0.948	3947	2602	3111
	0.474	3708	3162	3276
	0.237	3195	3050	2792
	0.095	2944	3065	3517
	0.047	3090	2954	2759
	0.024	3080	2929	3578
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1239	1207	1219
Probe		2369	2553	2451
Blank		2751	2880	2975
Ref		4769	5366	5844
LPS		3824	3986	4158

H ₂ O ₂		4794	5354	6252
JST 12/06/12	15.447	7547	7749	11746
	7.723	5473	6004	6980
	3.862	7937	3817	6639
	1.931	3743	4487	4195
	0.772	3738	3081	2799
	0.386	3374	3094	3186
	0.193	3085	3090	3144
	0.077	2939	3062	2882
	0.039	2902	2983	2936
	0.019	3043	3464	2713
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1318	1262	1281
Probe		2449	2549	3294
Blank		3135	2822	3045
Ref		4984	5728	6099
LPS		6580	4358	4836
H ₂ O ₂		5243	4934	5437
JST 03/26/13	18.904	5608	7155	5371
	9.452	5753	5286	6080
	4.726	3658	3874	5824
	2.363	3757	3652	3832
	0.945	4052	4094	4740
	0.473	3618	4470	3679
	0.236	3938	4829	3905
	0.095	4853	4001	3203
	0.047	3034	3683	3288
	0.024	4012	2991	3552
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1138	1115	1144
Probe		3262	3557	3761
Blank		3422	3673	225
Ref		5853	7781	174
LPS		6686	4162	4146
H ₂ O ₂		5604	5627	7542
JST 01/31/13	10.318	8311	8684	8466
	5.159	5793	8239	6567
	2.580	4267	4826	4999
	1.290	4029	4997	4313
	0.516	5060	3384	2955
	0.258	4235	3823	3844
	0.129	4198	4136	3919
	0.052	4502	3476	5147
	0.026	4563	4636	4297
	0.013	4414	4491	3414

Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1282	1262	1287
Probe		4011	4086	3737
Blank		4601	4180	3370
Ref		7176	7099	7877
LPS		5042	4030	4656
H ₂ O ₂		7647	15462	13158
JST 09/18/12	7.8942	5700	6567	4865
	3.9471	5852	5323	5175
	1.9735	5892	4879	4491
	0.9868	4880	4938	4997
	0.3947	4742	5089	5110
	0.1974	4872	4666	4624
	0.0987	4516	3988	4747
	0.0395	3953	4102	5038
	0.0197	4191	3519	4017
	0.0099	3764	4336	3554
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1192	1181	1168
Probe		6445	3670	3723
Blank		3745	4836	191
Ref		9123	234	388
LPS		5309	8093	5918
H ₂ O ₂		6514	7606	6289
JST 10/02/12	9.967	5704	5522	5383
	4.984	4653	5011	5288
	2.492	3951	7847	4558
	1.246	7078	9572	4247
	0.498	4843	4468	7946
	0.249	4012	3884	6136
	0.125	4141	4648	4525
	0.050	4325	3913	3626
	0.025	4326	4115	3599
	0.012	4379	4583	3887
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1138	1115	1144
Probe		3262	3557	3761
Blank		3422	3673	225
Ref		5853	7781	174
LPS		6686	4162	4146
H ₂ O ₂		5604	5627	7542
GT 08/29/12	11.878	4907	6769	5255
	5.939	4880	5717	3798
	2.969	4687	5573	3978
	1.485	4124	4659	3958

	0.594	5690	4886	3393
	0.297	4632	5044	5778
	0.148	3646	3441	3611
	0.059	3440	4414	3774
	0.030	4813	3331	3574
	0.015	4016	3755	4179
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1173	1181	1145
Probe		3450	3450	3358
Blank		3277	3037	333
Ref		6583	8137	292
LPS		5776	5929	3992
H ₂ O ₂		7906	8915	9486
JST 12/16/12	33.000	8453	7501	7913
	16.500	9244	4674	5293
	8.250	7610	4558	4571
	4.125	5149	3939	6165
	1.650	7020	4890	3575
	0.825	3874	5212	5740
	0.412	4687	3448	6675
	0.165	4426	4253	4463
	0.082	4499	3580	4345
	0.041	3644	3158	3108
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1127	2450	1177
Probe		2768	3249	2910
Blank		3226	3188	295
Ref		6685	432	488
LPS		3960	3476	3257
H ₂ O ₂		6535	4902	5220
YRK 12/10/12	9.738	7410	5460	7639
	4.869	6583	4791	5071
	2.435	5056	4484	5651
	1.217	3749	3764	4957
	0.487	4530	3868	5996
	0.243	3567	4615	5916
	0.122	3843	4018	4147
	0.049	3336	3580	3385
	0.024	5330	4755	5988
	0.012	3390	4800	5543
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1113	1112	1157
Probe		3335	3343	4756
Blank		3498	3119	3428
Ref		6429	9445	272

LPS		5117	5561	3140
H ₂ O ₂		7375	7239	8922
RS 10/02/13	32.705	13563	18908	14568
	16.352	8540	13604	10661
	8.176	4943	4731	5077
	4.088	4734	4133	5407
	1.635	3944	3665	6554
	0.818	2862	3955	3650
	0.409	3577	3286	3730
	0.164	3014	3283	3215
	0.082	3871	2828	2958
	0.041	3684	3680	3114
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1110	1128	1119
Probe		2774	2645	2616
Blank		2949	3076	3021
Ref		5735	8064	7188
LPS		3510	3832	3362
H ₂ O ₂		5326	6319	7708
JST 12/09/12	31.272	8335	7162	7978
	15.636	6262	6368	6994
	7.818	6062	4459	4870
	3.909	5095	4663	3453
	1.564	4169	3315	5358
	0.782	4934	5647	4196
	0.391	3837	4033	7530
	0.156	4154	3372	3462
	0.078	6200	3416	4359
	0.039	3765	6217	4534
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1113	1112	1157
Probe		3335	3343	4756
Blank		3498	3119	3428
Ref		6429	9445	272
LPS		5117	5561	3140
H ₂ O ₂		7375	7239	8922
JST 08/02/12	46.710	22551	16394	22745
	23.355	11515	9566	13014
	11.678	13033	7630	15961
	5.839	5255	7527	5603
	2.336	2913	4642	5154
	1.168	4512	4558	4202
	0.584	4382	4016	5853
	0.234	3940	2881	4646
	0.117	4434	3759	3347

	0.058	3500	4124	3441
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1110	1128	1119
Probe		2774	2645	2616
Blank		2949	3076	3021
Ref		5735	8064	7188
LPS		3510	3832	3362
H ₂ O ₂		5326	6319	7708
JST 09/13/12	25.510	8942	13273	8773
	12.755	6383	5449	5257
	6.378	4190	4753	4694
	3.189	4542	4804	4219
	1.276	3405	3342	3713
	0.638	4054	3349	5437
	0.319	5743	4509	4024
	0.128	3753	3230	4136
	0.064	3607	3799	4326
	0.032	4127	4012	3951
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1127	2450	1177
Probe		2768	3249	2910
Blank		3226	3188	295
Ref		6685	432	488
LPS		3960	3476	3257
H ₂ O ₂		6535	4902	5220
JST 02/06/13	42.061	8464	8129	7763
	21.031	7441	6347	7233
	10.515	6370	6138	6695
	5.258	4958	3602	5344
	2.103	3961	3691	3642
	1.052	3851	4478	3797
	0.526	3663	3638	3041
	0.210	3513	2786	3637
	0.105	3787	3202	3056
	0.053	3579	3568	4725
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1173	1181	1145
Probe		3450	3450	3358
Blank		3277	3037	333
Ref		6583	8137	292
LPS		5776	5929	3992
H ₂ O ₂		7906	8915	9486
YRK 06/24/12	43.810	8758	14469	9310
	21.905	8693	7009	5145
	10.952	6908	4554	5385

	5.476	4004	4874	4799
	2.190	3797	4392	5471
	1.095	5829	4769	3980
	0.548	4763	4720	5341
	0.219	3588	3294	3303
	0.110	7151	4441	4998
	0.055	3430	5718	4978
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1049	1085	1098
Probe		4938	5840	4945
Blank		6203	5916	6837
Ref		9362	10299	7599
LPS		5309	5555	5017
H ₂ O ₂		12886	8896	7559
YRK 07/02/12	58.081	16070	19777	17122
	29.041	12210	14476	13811
	14.520	10056	11022	21481
	7.260	10741	10834	11049
	2.904	7703	7557	12511
	1.452	8362	7006	8263
	0.726	8989	6942	13996
	0.290	7619	13096	9085
	0.145	7733	7351	9392
	0.073	6610	6818	9181
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1026	1038	1036
Probe		6161	5316	6178
Blank		7227	6305	7052
Ref		10301	8323	8862
LPS		13357	7166	7615
H ₂ O ₂		12730	10498	8664
GT 08/27/12	57.343	16279	20410	15481
	28.672	13479	26319	15175
	14.336	15824	12312	22621
	7.168	9948	15470	12049
	2.867	15041	13103	17205
	1.434	11889	11688	15845
	0.717	9738	17025	15344
	0.287	10320	13446	13445
	0.143	9461	9272	12515
	0.072	9344	11105	14073
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1026	1038	1036
Probe		6161	5316	6178
Blank		7227	6305	7052

Ref		10301	8323	8862
LPS		13357	7166	7615
H ₂ O ₂		12730	10498	8664
GT 08/18/12	25.365	11981	11015	8099
	12.683	10571	7487	12486
	6.341	12449	9381	8828
	3.171	8919	11258	12293
	1.268	7388	9543	10622
	0.634	8780	6376	9859
	0.317	7078	7897	8469
	0.127	7966	7236	7620
	0.063	6270	7595	8721
	0.032	6632	8136	6859
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1037	1031	984
Probe		7091	6679	7135
Blank		6885	7791	6545
Ref		8260	7308	7747
LPS		6016	6702	6500
H ₂ O ₂		8695	9890	9447
RS 10/03/13	33.668	14913	18321	20516
	16.834	18069	15581	12977
	8.417	9229	16471	19071
	4.208	11669	12477	19732
	1.683	11430	11075	13440
	0.842	8737	10413	11346
	0.421	8085	9204	10114
	0.168	10808	13166	12363
	0.084	7693	10064	11786
	0.042	11617	9784	12368
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1012	1050	1017
Probe		5348	5168	5486
Blank		5895	5173	5677
Ref		8554	7661	7615
LPS		7233	5509	5245
H ₂ O ₂		9532	8335	7225
RS 09/30/13	18.080	10129	10214	10858
	9.040	12178	8069	9523
	4.520	10626	7364	8523
	2.260	5055	7151	7405
	0.904	6338	6923	11703
	0.452	5528	9054	7569
	0.226	6427	6018	10443
	0.090	8055	7029	9855

	0.045	5968	7539	7622
	0.023	6285	7680	7125
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1049	1085	1098
Probe		4938	5840	4945
Blank		6203	5916	6837
Ref		9362	10299	7599
LPS		5309	5555	5017
H ₂ O ₂		12886	8896	7559
JST 08/16/12	41.169	12007	14200	19337
	20.585	11859	13542	12138
	10.292	9682	9041	11562
	5.146	8845	8787	6433
	2.058	5671	6354	7407
	1.029	8505	5985	10696
	0.515	5403	6653	8269
	0.206	14229	6000	8106
	0.103	6374	6201	7147
	0.051	5420	5890	6501
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1037	1031	984
Probe		7091	6679	7135
Blank		6885	7791	6545
Ref		8260	7308	7747
LPS		6016	6702	6500
H ₂ O ₂		8695	9890	9447
JST 09/15/12	27.029	10519	12086	11648
	13.514	8816	7047	6453
	6.757	11531	13147	10834
	3.379	6816	8062	8620
	1.351	8124	7400	6267
	0.676	6751	6183	6944
	0.338	5459	6597	6700
	0.135	6189	6396	7057
	0.068	5951	7153	7214
	0.034	5511	7404	9426
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1012	1050	1017
Probe		5348	5168	5486
Blank		5895	5173	5677
Ref		8554	7661	7615
LPS		7233	5509	5245
H ₂ O ₂		9532	8335	7225
JST 08/30/12	16.412	9379	12584	16943
	8.206	8811	12125	13786

	4.103	10627	12669	17446
	2.052	9569	11648	14619
	0.821	7915	13108	15643
	0.410	13822	11290	14924
	0.205	8623	12799	14371
	0.082	10866	10519	13276
	0.041	8747	9740	12178
	0.021	9248	9986	10419
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1020	1033	1041
Probe		7247	5777	5015
Blank		7831	6061	6789
Ref		7398	8073	7580
LPS		6756	5605	5440
H ₂ O ₂		7733	6770	8012
JST 08/31/12	19.018	8765	8705	8933
	9.509	7040	9082	6640
	4.755	8203	10453	11428
	2.377	8341	7161	9272
	0.951	7486	7700	8092
	0.475	6263	7742	9748
	0.238	7401	6878	8733
	0.095	8066	6378	9740
	0.048	6546	7631	8907
	0.024	5683	10302	10700
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		986	1009	928
Probe		7475	6562	5508
Blank		7596	6720	6199
Ref		8071	7891	7047
LPS		5625	7132	6328
H ₂ O ₂		8634	7845	12867
YRK 06/22/12	34.399	14387	17779	15357
	17.200	11248	17033	16775
	8.600	9929	12153	14801
	4.300	11508	9647	15021
	1.720	11759	8897	9148
	0.860	9295	9861	10912
	0.430	9790	12001	13078
	0.172	8948	10826	10452
	0.086	9008	10585	10939
	0.043	8631	10016	10860
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1020	1033	1041
Probe		7247	5777	5015

Blank		7831	6061	6789
Ref		7398	8073	7580
LPS		6756	5605	5440
H ₂ O ₂		7733	6770	8012
GT 08/31/12	19.443	10872	16224	14481
	9.722	9651	21099	16949
	4.861	10342	13170	10739
	2.430	13877	12068	12456
	0.972	8984	10832	12385
	0.486	9644	12460	12141
	0.243	8220	11217	17390
	0.097	13056	15906	10626
	0.049	9517	2442	13028
	0.024	7687	11031	14094
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		986	1009	928
Probe		7475	6562	5508
Blank		7596	6720	6199
Ref		8071	7891	7047
LPS		5625	7132	6328
H ₂ O ₂		8634	7845	12867
GT 08/26/12	57.249	8330	8606	7301
	28.624	7839	7313	6611
	14.312	10277	9699	9016
	7.156	7826	7653	9510
	2.862	6848	8049	7204
	1.431	9073	7570	7682
	0.716	9272	7218	7214
	0.286	9960	7027	7092
	0.143	8100	8202	8126
	0.072	6754	7984	7484
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1176	1147	1121
Probe		4676	3297	3222
Blank		6581	3886	3776
Ref		9242	11238	7927
LPS		4778	4426	4081
H ₂ O ₂		8772	5146	5078
JST 06/30/12	46.642	13862	21448	17412
	23.321	15955	10849	14993
	11.661	13175	8112	11030
	5.830	9496	7591	7273
	2.332	6645	9048	6483
	1.166	6601	4806	5597
	0.583	5210	5359	5963

	0.233	5363	4457	5761
	0.117	7392	7201	10060
	0.058	4527	6271	6897
Sample	Dose ($\mu\text{g}/20,000$ cells)	ROS/RNS (f.u.)		
No probe		1079	1063	1074
Probe		6947	8227	6013
Blank		10669	8653	8353
Ref		13514	11413	12429
LPS		7476	13608	7289
H ₂ O ₂		11459	14290	11899
JST 07/02/12	45.497	23023	28704	22368
	22.749	17723	25225	20443
	11.374	14423	17256	15867
	5.687	16890	7058	9304
	2.275	6049	15235	6710
	1.137	7170	9264	10454
	0.569	7001	6923	7389
	0.227	7225	8884	7989
	0.114	7470	7763	8647
	0.057	6458	10320	6838
Sample	Dose ($\mu\text{g}/20,000$ cells)	ROS/RNS (f.u.)		
No probe		1132	1155	1155
Probe		4385	4506	4365
Blank		7320	7256	3651
Ref		10011	9658	17358
LPS		5017	3586	4625
H ₂ O ₂		6194	5281	5272
JST 07/03/12	42.341	19793	17190	31270
	21.171	13818	16200	12979
	10.585	11188	14433	12003
	5.293	4269	11884	11191
	2.117	9469	12393	9486
	1.059	4854	9651	5969
	0.529	4937	9009	5007
	0.212	4506	4379	4946
	0.106	4299	4565	4961
	0.053	3736	4024	6101
Sample	Dose ($\mu\text{g}/20,000$ cells)	ROS/RNS (f.u.)		
No probe		1071	1078	1186
Probe		5970	6701	5278
Blank		8135	7507	8256
Ref		12983	11012	11791
LPS		8804	9236	8082
H ₂ O ₂		11951	8984	62104
JST 08/14/12	26.911	10713	10868	16580

	13.456	16763	20358	16570
	6.728	9033	14549	12612
	3.364	6272	10337	13324
	1.346	10183	9120	14588
	0.673	9504	6398	8256
	0.336	6964	5547	10210
	0.135	9091	6440	10700
	0.067	7346	8358	14824
	0.034	6478	7236	15374
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1176	1147	1121
Probe		4676	3297	3222
Blank		6581	3886	3776
Ref		9242	11238	7927
LPS		4778	4426	4081
H ₂ O ₂		8772	5146	5078
JST 08/23/12	37.305	14873	16930	15403
	18.652	13578	12093	19344
	9.326	7629	7062	7618
	4.663	5282	4967	6584
	1.865	4861	4138	5007
	0.933	4311	3982	4600
	0.466	3431	3676	8856
	0.187	5925	5690	7403
	0.093	5702	4254	5273
	0.047	3855	4837	5343
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1071	1078	1186
Probe		5970	6701	5278
Blank		8135	7507	8256
Ref		12983	11012	11791
LPS		8804	9236	8082
H ₂ O ₂		11951	8984	62104
JST 08/27/12	34.562	30227	11788	25563
	17.281	12249	11016	10444
	8.641	8988	14127	10980
	4.320	13058	7838	6388
	1.728	7799	10837	7579
	0.864	6905	9901	8816
	0.432	9056	10601	11312
	0.173	10153	14842	7777
	0.086	10155	9109	11283
	0.043	6926	7301	8947
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1053	1096	1095

Probe		10383	6083	4620
Blank		9180	6646	7673
Ref		8280	8193	9931
LPS		4564	3969	4925
H ₂ O ₂		26143	5829	44060
JST 09/07/12	33.013	13751	13275	14088
	16.507	9108	12150	12466
	8.253	9427	8660	7729
	4.127	6676	7357	10980
	1.651	6722	10472	8569
	0.825	4736	6538	6165
	0.413	6282	4669	7152
	0.165	5008	5586	7052
	0.083	4837	8614	7651
	0.041	6017	5636	6464
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		10383	6083	4620
Probe		9180	6646	7673
Blank		8280	8193	9931
Ref		4564	3969	4925
LPS		26143	5829	44060
H ₂ O ₂		10018	9362	10738
JST 02/13/13	12.643	11733	8476	10429
	6.321	7390	11023	7179
	3.161	6954	5845	14938
	1.580	10971	6004	7994
	0.632	5737	7047	5380
	0.316	8092	5558	7696
	0.158	7259	7655	7207
	0.063	7149	7631	7305
	0.032	7258	5488	4816
	0.016	10383	6083	4620
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1202	1208	1193
Probe		5111	4607	4263
Blank		5358	5454	6359
Ref		14168	14301	9672
LPS		4960	7085	6192
H ₂ O ₂		51954	11026	9224
JST 02/14/13	22.786	11371	7922	8988
	11.393	10987	6441	6242
	5.697	9048	5662	10174
	2.848	7016	10693	7084
	1.139	5556	7150	6864
	0.570	7783	8411	7680

	0.285	4922	3929	4856
	0.114	8673	5599	6343
	0.057	6425	5244	6963
	0.028	5632	6920	7174
Sample	Dose ($\mu\text{g}/20,000$ cells)	ROS/RNS (f.u.)		
No probe		1132	1155	1155
Probe		4385	4506	4365
Blank		7320	7256	3651
Ref		10011	9658	17358
LPS		5017	3586	4625
H ₂ O ₂		6194	5281	5272
JST 03/05/13	29.541	8322	9782	13849
	14.771	7244	9825	6833
	7.385	7856	7532	8848
	3.693	7159	7798	5392
	1.477	7709	5875	5802
	0.739	4586	4836	5334
	0.369	5414	4720	5383
	0.148	6149	5231	5228
	0.074	4158	4912	4915
	0.037	5555	5403	7890
Sample	Dose ($\mu\text{g}/20,000$ cells)	ROS/RNS (f.u.)		
No probe		1079	1063	1074
Probe		6947	8227	6013
Blank		10669	8653	8353
Ref		13514	11413	12429
LPS		7476	13608	7289
H ₂ O ₂		11459	14290	11899
YRK 06/29/12	42.836	24122	23221	21322
	21.418	11965	19399	25188
	10.709	13455	13525	10002
	5.355	7752	11603	13104
	2.142	35835	7952	9317
	1.071	8513	6239	14061
	0.535	6821	6617	8090
	0.214	6694	7255	9266
	0.107	5865	8203	7675
	0.054	11550	7458	9562
Sample	Dose ($\mu\text{g}/20,000$ cells)	ROS/RNS (f.u.)		
No probe		1202	1208	1193
Probe		5111	4607	4263
Blank		5358	5454	6359
Ref		14168	14301	9672
LPS		4960	7085	6192
H ₂ O ₂		51954	11026	9224

YRK 07/01/12	66.297	39323	23864	23687
	33.149	13258	11505	15695
	16.574	7021	13352	13748
	8.287	4974	10870	6517
	3.315	6874	7645	9779
	1.657	6513	12802	5732
	0.829	13542	6321	5790
	0.331	6562	8793	7388
	0.166	6487	8797	12702
	0.083	12716	6174	8128
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1233	1256	1230
Probe		5671	4388	5049
Blank		4831	3841	3324
Ref		10569	8323	7110
LPS		7406	5381	5683
H ₂ O ₂		11517	7467	8956
JST 07/31/12	20.780	13524	13975	13731
	10.390	11249	11236	10283
	5.195	5510	7661	7125
	2.597	7313	9101	7895
	1.039	5390	4028	4259
	0.519	7086	4332	7427
	0.260	4703	4094	4920
	0.104	4325	4698	4152
	0.052	3952	4063	7711
	0.026	4536	4832	5768
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1109	1133	1159
Probe		5889	4204	3044
Blank		5479	5471	4679
Ref		8164	8458	7225
LPS		6914	5823	5821
H ₂ O ₂		12310	10481	12932
JST 08/19/12	22.109	6490	8557	8367
	11.054	7275	10732	14690
	5.527	6203	5978	6971
	2.764	5421	5297	4293
	1.105	5779	5379	5638
	0.553	4388	4141	5242
	0.276	4512	5960	5161
	0.111	5514	5220	5810
	0.055	4648	7318	6733
	0.028	4176	6924	6505
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		

No probe		1172	1156	1151
Probe		4617	4710	4717
Blank		4615	4348	3974
Ref		7859	6741	9412
LPS		6069	5834	6563
H ₂ O ₂		6737	6574	6977
JST 08/21/12	33.354	10923	14928	13256
	16.677	10332	10661	12788
	8.338	7428	7294	7181
	4.169	5353	6177	8646
	1.668	4257	5448	4877
	0.834	4326	4748	5992
	0.417	4491	4218	4481
	0.167	4336	4990	4430
	0.083	5527	6852	7210
	0.042	6044	5190	7332
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1233	1256	1230
Probe		5671	4388	5049
Blank		4831	3841	3324
Ref		10569	8323	7110
LPS		7406	5381	5683
H ₂ O ₂		11517	7467	8956
JST 08/25/12	27.697	12230	10249	8344
	13.848	8397	7252	9027
	6.924	5916	5756	5624
	3.462	5204	6483	5763
	1.385	4422	4984	5533
	0.692	5338	5051	6473
	0.346	4523	4515	4319
	0.138	4122	5094	5298
	0.069	5440	6676	7960
	0.035	5381	4640	9831
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1155	1194	1175
Probe		5245	6518	5825
Blank		4943	5123	5801
Ref		7897	8158	10528
LPS		4926	5817	4356
H ₂ O ₂		9678	13890	8056
JST 08/26/12	36.588	10766	10008	9650
	18.294	7647	8226	10425
	9.147	9536	8243	7396
	4.573	7808	8641	7082
	1.829	9565	5597	5044

	0.915	5326	5882	5140
	0.457	5215	5647	4229
	0.183	5817	5027	6562
	0.091	5173	4418	4840
	0.046	5171	4521	4464
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1109	1133	1159
Probe		5889	4204	3044
Blank		5479	5471	4679
Ref		8164	8458	7225
LPS		6914	5823	5821
H ₂ O ₂		12310	10481	12932
JST 09/30/12	38.194	11506	11878	13507
	19.097	9730	11859	16076
	9.548	9375	6844	7697
	4.774	12173	6042	6349
	1.910	5748	4253	4507
	0.955	4120	5825	6139
	0.477	5893	6938	5275
	0.191	4330	5453	5055
	0.095	4971	3998	4195
	0.048	5842	4841	6830
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1169	1146	1114
Probe		4467	3895	6514
Blank		4302	5076	5047
Ref		6201	7331	6801
LPS		5440	6385	5183
H ₂ O ₂		9576	9031	7880
JST 01/28/13	41.266	9473	8441	8777
	20.633	5401	7223	7369
	10.317	7219	6037	5143
	5.158	5918	5537	5744
	2.063	5529	5379	4512
	1.032	4854	6754	4631
	0.516	5249	5359	4422
	0.206	4962	4333	5485
	0.103	4916	4221	4370
	0.052	5704	6948	5035
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1169	1146	1114
Probe		4467	3895	6514
Blank		4302	5076	5047
Ref		6201	7331	6801
LPS		5440	6385	5183

H ₂ O ₂		9576	9031	7880
YRK 06/14/12	33.668	9599	11848	12162
	16.834	6596	9225	10972
	8.417	9196	6762	9263
	4.209	7209	6789	9175
	1.683	5416	7450	7721
	0.842	4583	4938	6083
	0.421	5554	5258	5257
	0.168	5337	6683	5576
	0.084	4921	6791	6271
	0.042	5147	9230	6137
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1177	1227	1303
Probe		5079	4435	4375
Blank		5494	9561	5017
Ref		9779	8063	11372
LPS		7171	5054	6261
H ₂ O ₂		9257	8162	7503
YRK 06/15/12	35.180	9946	10976	14296
	17.590	8134	7449	8177
	8.795	6321	5454	9322
	4.398	5363	4603	5999
	1.759	4447	8587	7025
	0.880	4331	5742	6199
	0.440	4344	5050	5957
	0.176	6096	6222	5924
	0.088	5359	6804	5954
	0.044	5240	5671	5944
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1172	1156	1151
Probe		4617	4710	4717
Blank		4615	4348	3974
Ref		7859	6741	9412
LPS		6069	5834	6563
H ₂ O ₂		6737	6574	6977
YRK 06/17/12	30.508	8179	9322	7047
	15.254	7630	6700	5752
	7.627	4342	7088	6491
	3.813	5331	5195	7351
	1.525	4552	4670	5758
	0.763	4677	4270	4539
	0.381	4297	4140	6505
	0.153	4398	4512	3792
	0.076	4927	4523	3675
	0.038	4296	5360	4826

Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1177	1227	1303
Probe		5079	4435	4375
Blank		5494	9561	5017
Ref		9779	8063	11372
LPS		7171	5054	6261
H ₂ O ₂		9257	8162	7503
YRK 06/19/12	38.837	10059	9011	10538
	19.418	8637	9548	9352
	9.709	7370	8579	5955
	4.855	7217	6412	5230
	1.942	5025	4516	4824
	0.971	4170	7085	4375
	0.485	4822	4274	4256
	0.194	6122	5299	4615
	0.097	4089	4753	5129
	0.049	5496	5498	4774
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1155	1194	1175
Probe		5245	6518	5825
Blank		4943	5123	5801
Ref		7897	8158	10528
LPS		4926	5817	4356
H ₂ O ₂		9678	13890	8056
YRK 06/23/12	42.278	10336	10338	12881
	21.139	6816	11994	8181
	10.569	8854	5968	7628
	5.285	5091	5328	5438
	2.114	4951	6013	5662
	1.057	5294	5724	7508
	0.528	4660	5475	5260
	0.211	5006	5240	6356
	0.106	6352	6883	9909
	0.053	7185	9879	8325
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1284	1300	1357
Probe		4865	3982	3942
Blank		4441	4325	3341
Ref		6524	6944	5173
LPS		4893	5147	4664
H ₂ O ₂		17299	10145	8673
JST 12/21/12	8.795	7346	8829	9366
	4.397	6390	9340	6642
	2.199	5405	5357	7014
	1.099	4366	5691	4654

	0.440	4443	4562	5501
	0.220	4592	5101	4453
	0.110	4860	4148	3908
	0.044	4197	6064	3164
	0.022	6610	5711	5985
	0.011	4526	3941	5172
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1284	1300	1357
Probe		4865	3982	3942
Blank		4441	4325	3341
Ref		6524	6944	5173
LPS		4893	5147	4664
H ₂ O ₂		17299	10145	8673
JST 01/04/13	32.368	9374	6200	7918
	16.184	8631	11677	9400
	8.092	5845	7159	7112
	4.046	6390	6537	5489
	1.618	3886	5661	5613
	0.809	7193	7607	5609
	0.405	6720	9586	6595
	0.162	5756	6267	6712
	0.081	7052	7277	7364
	0.040	6104	6947	10467
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1258	1237	1235
Probe		3750	4330	4483
Blank		4671	4414	5716
Ref		9329	6738	6609
LPS		5110	5980	4682
H ₂ O ₂		6376	6446	10395
JST 03/10/13	39.451	7252	7370	6566
	19.726	5758	6935	6812
	9.863	5012	4449	5110
	4.931	4456	4317	3725
	1.973	3742	4077	6093
	0.986	3926	3966	6577
	0.493	5692	4001	4557
	0.197	5873	3786	4167
	0.099	5133	4491	6266
	0.049	4592	4457	3854
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1258	1237	1235
Probe		3750	4330	4483
Blank		4671	4414	5716
Ref		9329	6738	6609

LPS		5110	5980	4682
H ₂ O ₂		6376	6446	10395
JST 03/12/13	12.595	8923	7764	6611
	6.298	8321	4791	7802
	3.149	7068	6962	6612
	1.574	5946	7021	6773
	0.630	4280	5355	5983
	0.315	4764	5937	5027
	0.157	5003	6508	4406
	0.063	4836	4929	6122
	0.031	5766	5453	5717
	0.016	5101	4736	6967
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1318	1295	1307
Probe		4604	4863	3582
Blank		4793	5169	4128
Ref		7476	6886	8284
LPS		5499	4734	3705
H ₂ O ₂		8324	9980	9333
JST 12/28/12	29.090	7192	8159	6627
	14.545	7522	6445	6231
	7.273	6896	6164	4785
	3.636	3375	4733	5147
	1.455	3939	4573	4395
	0.727	3898	5266	3715
	0.364	4351	4885	4795
	0.145	4181	6103	5402
	0.073	4074	4150	4565
	0.036	3982	5521	3986
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1318	1295	1307
Probe		4604	4863	3582
Blank		4793	5169	4128
Ref		7476	6886	8284
LPS		5499	4734	3705
H ₂ O ₂		8324	9980	9333
JST 02/02/13	28.578	7445	7511	9539
	14.289	9379	4781	4809
	7.145	7934	5064	5501
	3.572	6806	5995	5919
	1.429	4305	4511	5496
	0.714	4224	4714	5075
	0.357	4929	4567	4678
	0.143	4575	4823	4470
	0.071	5277	5739	6806

	0.036	5031	4809	6981
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1282	1262	1287
Probe		4011	4086	3737
Blank		4601	4180	3370
Ref		7176	7099	7877
LPS		5042	4030	4656
H ₂ O ₂		7647	15462	13158
JST 01/02/13	20.046	9673	7902	9638
	10.023	6249	6624	10790
	5.011	5551	5846	4247
	2.506	3926	5109	5235
	1.002	4489	5811	7268
	0.501	4335	5949	5947
	0.251	4900	4302	4331
	0.100	4355	6086	5928
	0.050	5360	8815	6494
	0.025	4799	6905	6563
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1317	1264	1240
Probe		4683	3885	3171
Blank		4708	7036	4669
Ref		7594	7145	7409
LPS		5446	4466	4693
H ₂ O ₂		13511	9894	10943
JST 12/23/12	19.713	10077	7526	8544
	9.857	5613	6286	5895
	4.928	4254	4773	4609
	2.464	4220	5189	4819
	0.986	4086	4215	4618
	0.493	4262	4523	4761
	0.246	2858	3221	3038
	0.099	4236	3747	3683
	0.049	3454	4652	3430
	0.025	4007	4303	5754
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1317	1264	1240
Probe		4683	3885	3171
Blank		4708	7036	4669
Ref		7594	7145	7409
LPS		5446	4466	4693
H ₂ O ₂		13511	9894	10943
JST 03/15/13	26.648	7456	11395	8869
	13.324	7218	7786	6163
	6.662	6497	5389	5982

	3.331	4309	5345	7424
	1.332	5501	4115	5243
	0.666	4533	5257	3763
	0.333	4715	4634	5268
	0.133	4273	4755	4524
	0.067	5364	6997	7828
	0.033	4077	5232	8550
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1363	1316	1324
Probe		3895	3788	3843
Blank		5188	4082	3881
Ref		7882	7027	6896
LPS		4998	4540	4261
H ₂ O ₂		9974	12609	10901
YRK 07/15/12	16.325	8152	7229	7302
	8.162	6994	5677	5669
	4.081	5218	5126	6319
	2.041	4658	5685	5108
	0.816	5782	4077	4302
	0.408	5279	5385	5144
	0.204	5357	4064	3953
	0.082	4019	3979	4044
	0.041	3676	4314	4109
	0.020	4388	5353	5403
Sample	Dose (µg/20,000 cells)	ROS/RNS (f.u.)		
No probe		1363	1316	1324
Probe		3895	3788	3843
Blank		5188	4082	3881
Ref		7882	7027	6896
LPS		4998	4540	4261
H ₂ O ₂		9974	12609	10901
YRK 07/10/12	16.958	8703	12253	10194
	8.479	9241	8639	11168
	4.239	7212	8370	7674
	2.120	5704	4364	6445
	0.848	5122	5534	6146
	0.424	4342	5582	5280
	0.212	5179	6835	5499
	0.085	4610	4892	5638
	0.042	4434	6997	8696
	0.021	4169	6269	5727

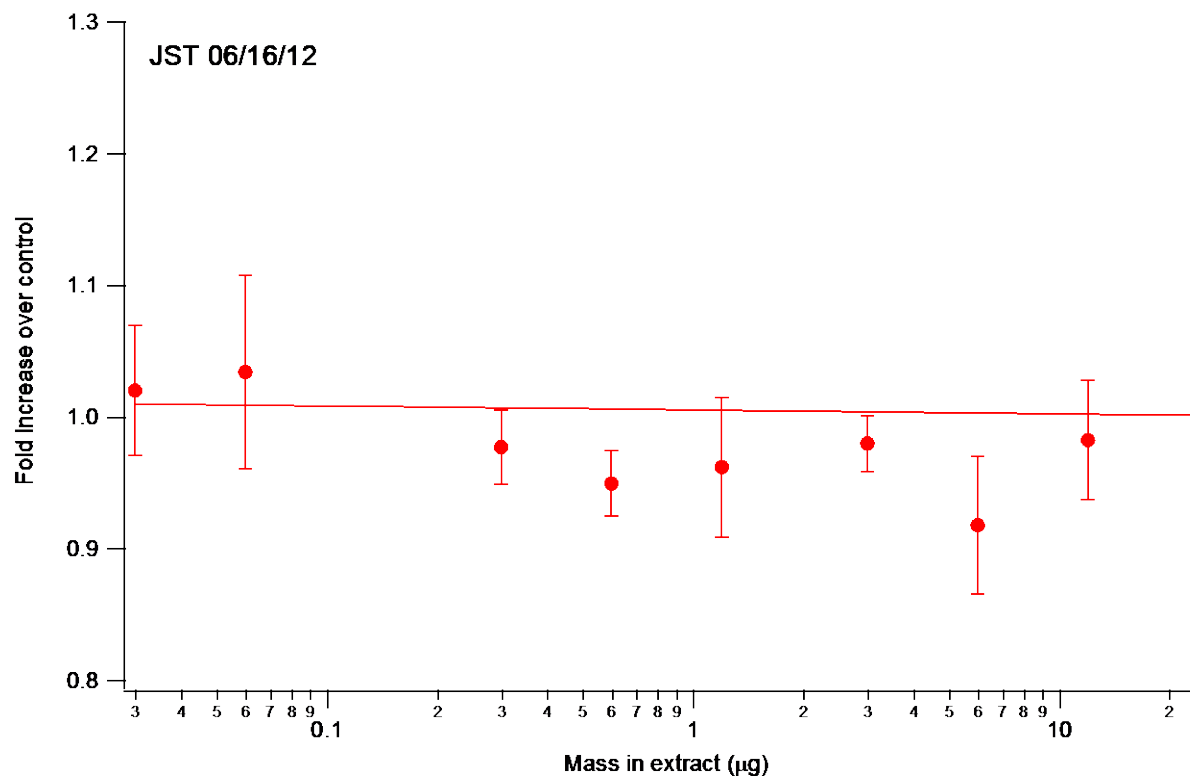


Figure D72. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 06/16/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using NRVM cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

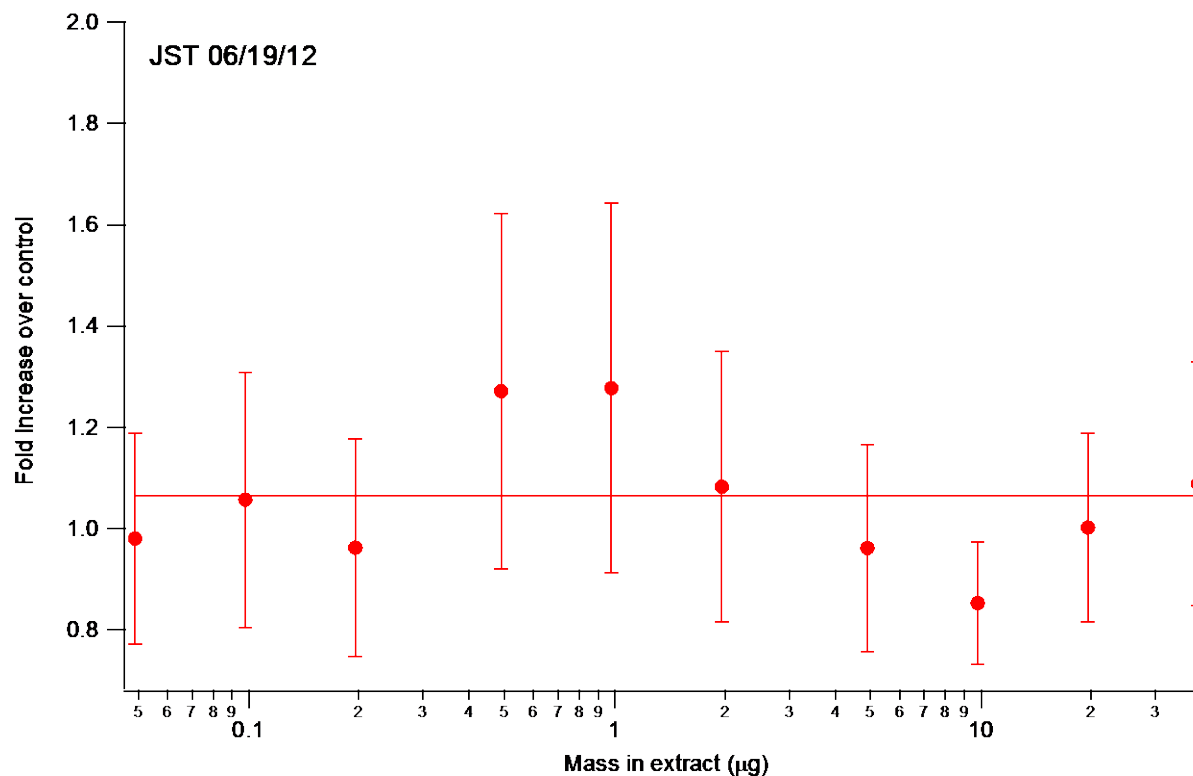


Figure D73. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 06/19/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using NRVM cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

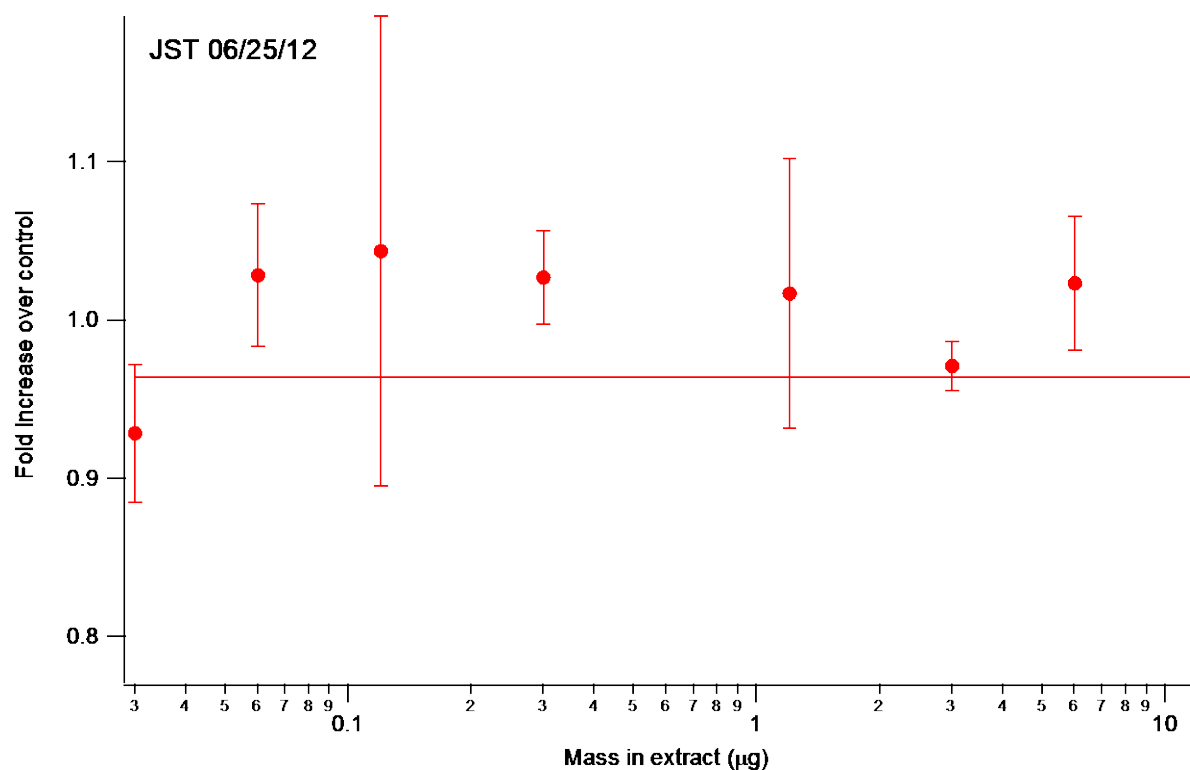


Figure D74. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 06/25/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using NRVM cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

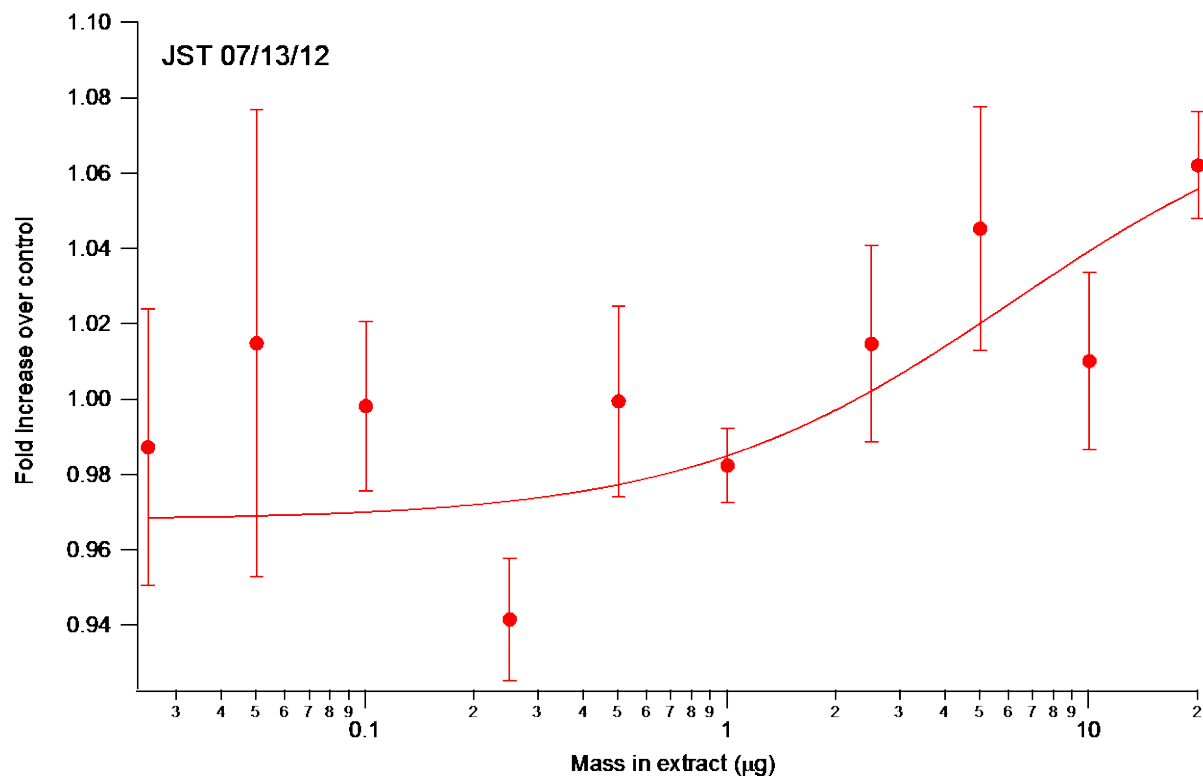


Figure D75. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 07/13/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using NRVM cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

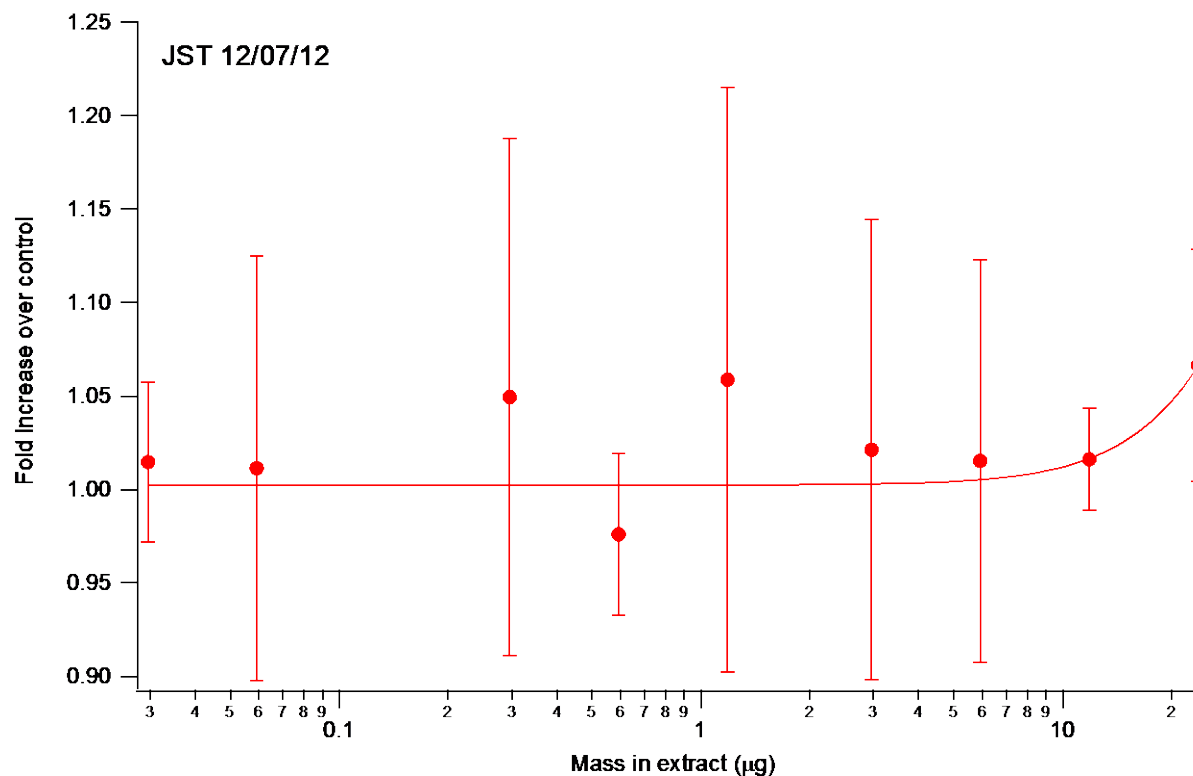


Figure D76. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 12/07/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using NRVM cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

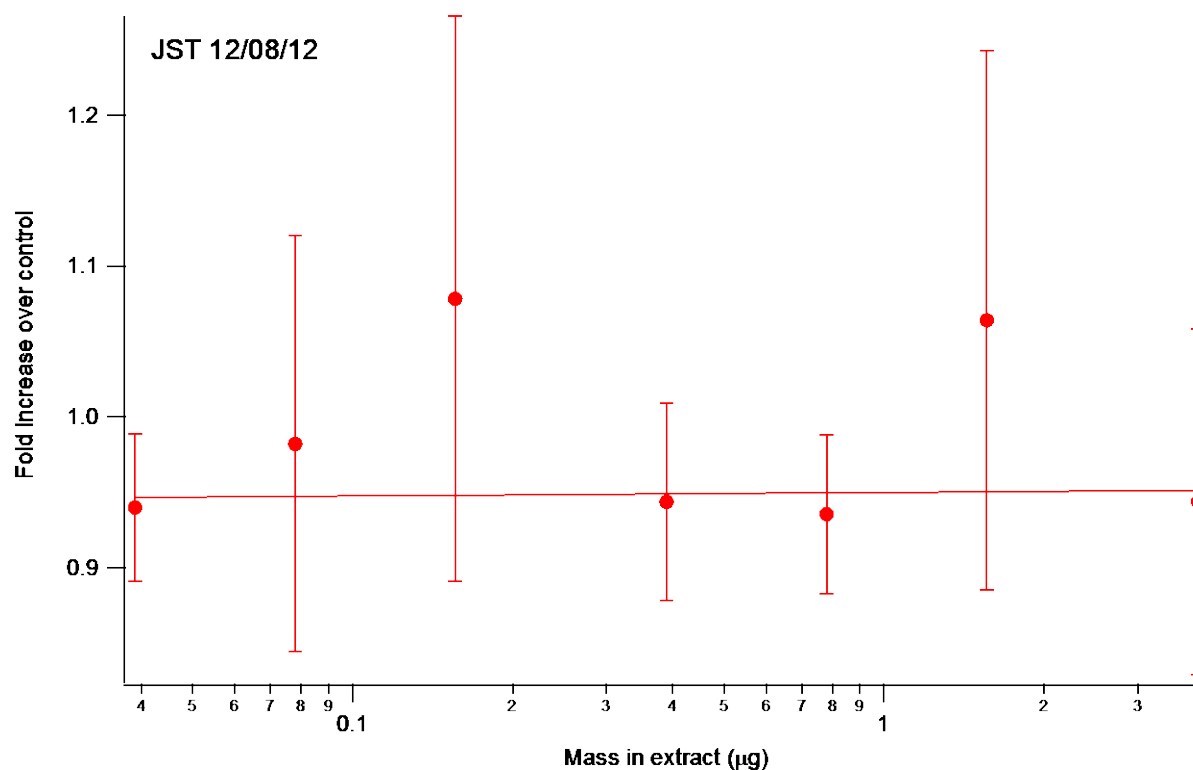


Figure D77. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 12/08/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using NRVM cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

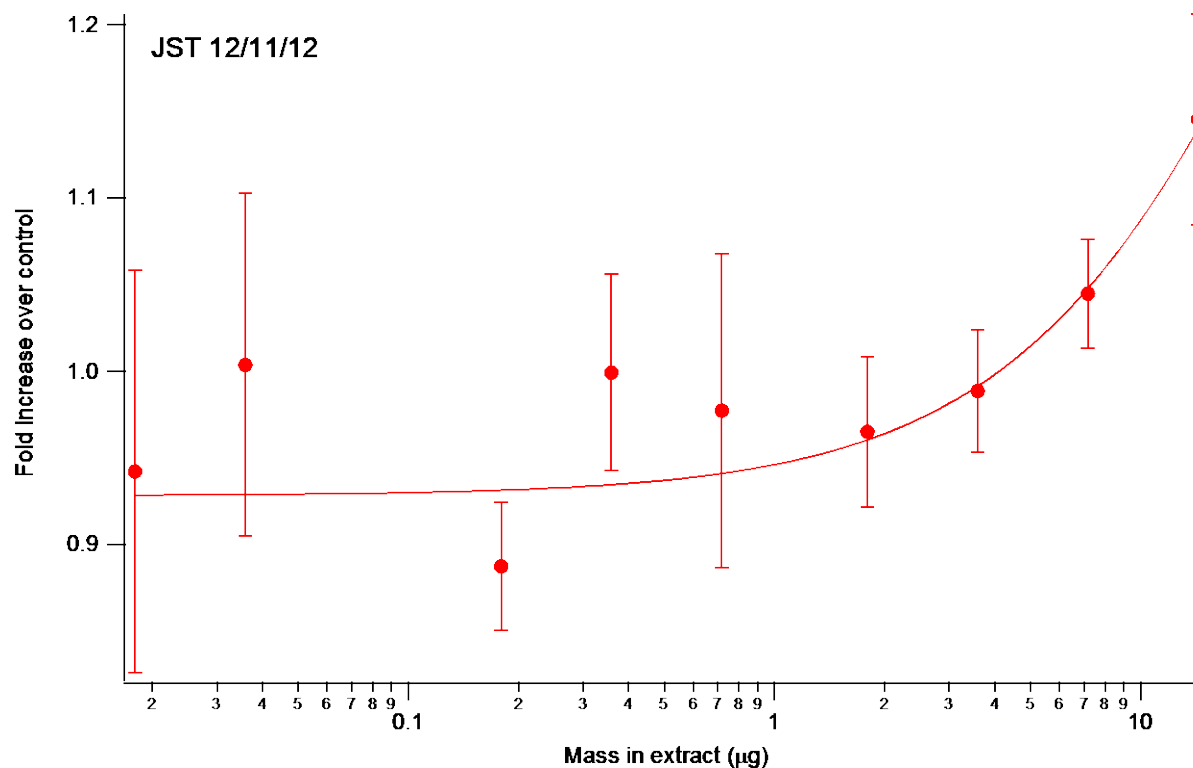


Figure D78. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 12/11/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using NRVM cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

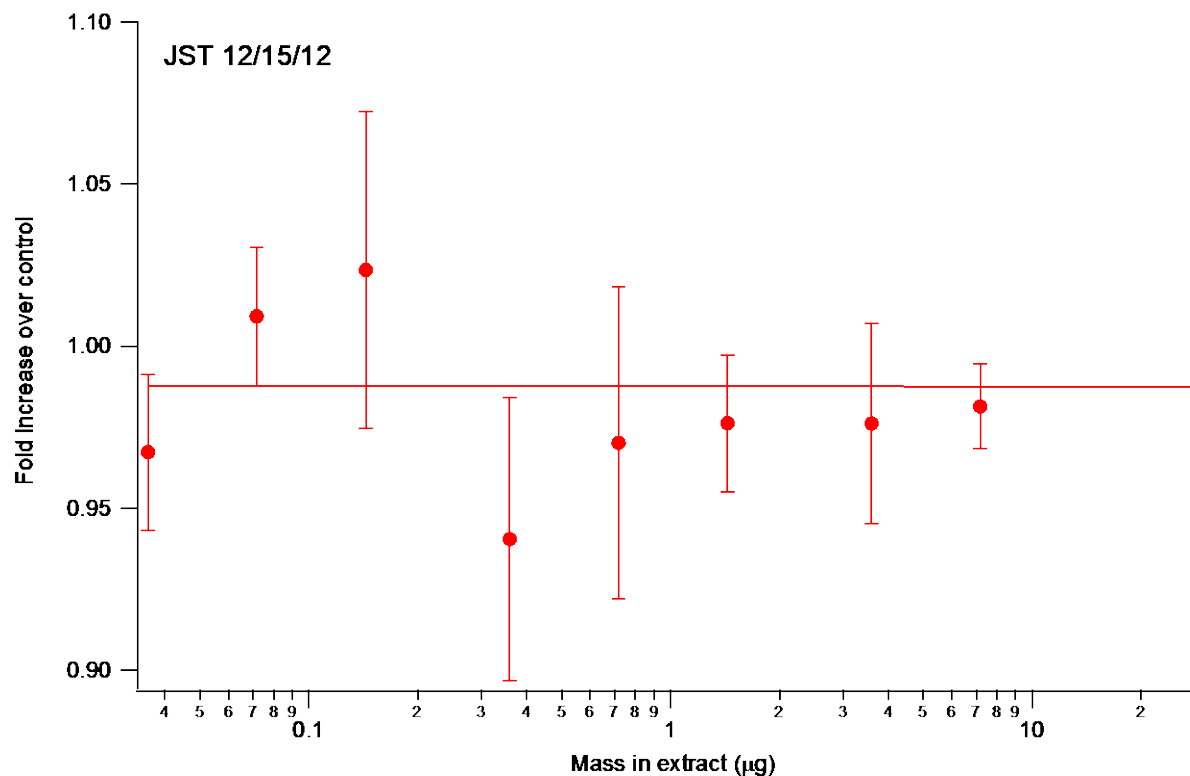


Figure D79. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 12/15/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using NRVM cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

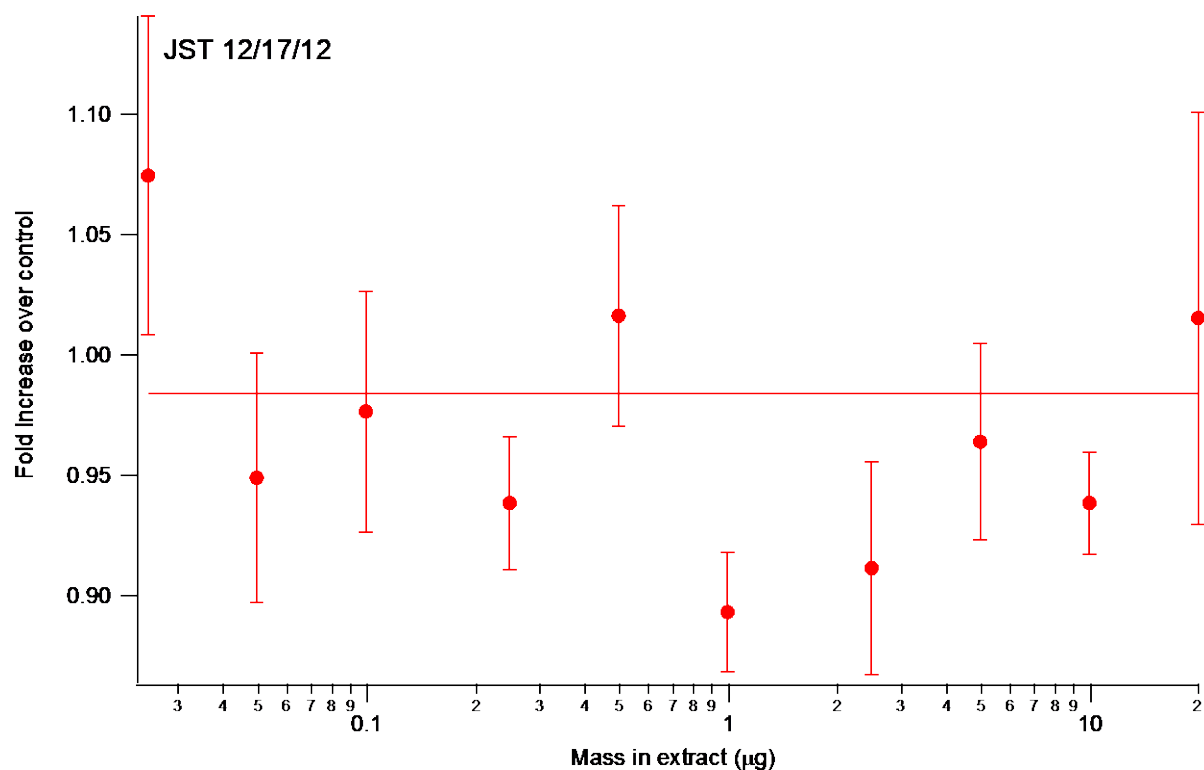


Figure D80. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 12/17/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using NRVM cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

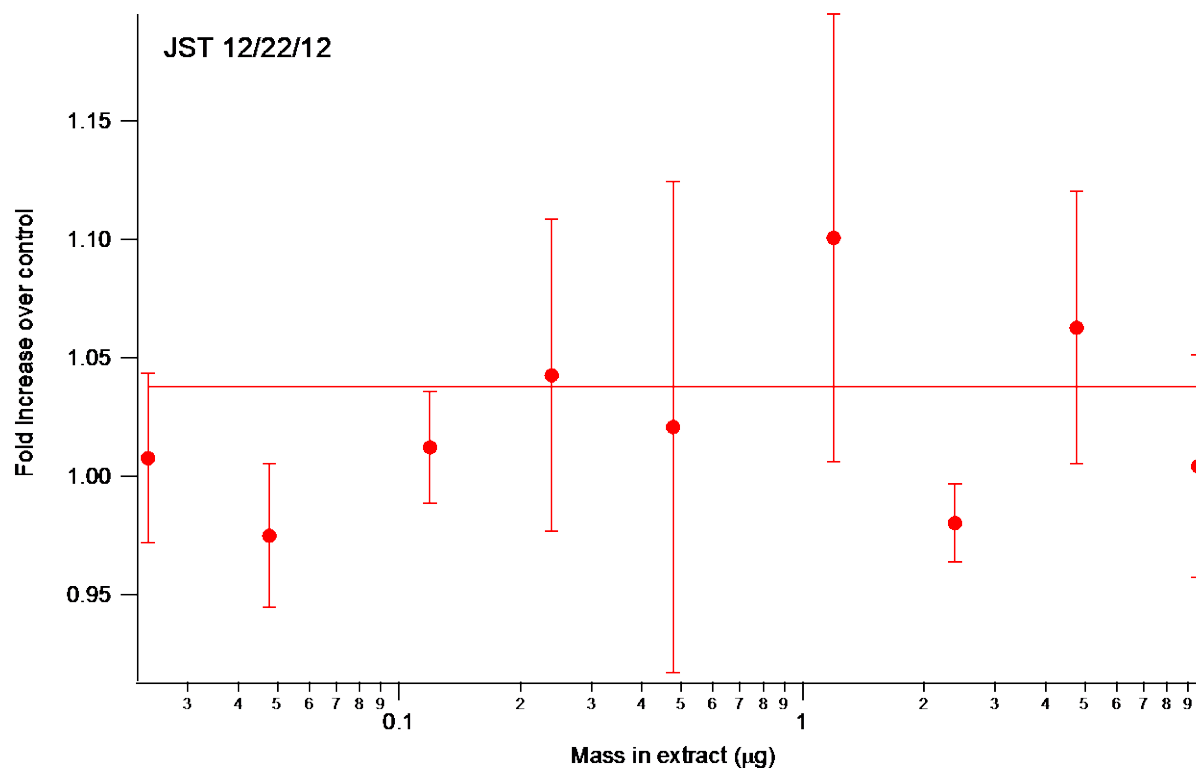


Figure D81. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 12/22/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using NRVM cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

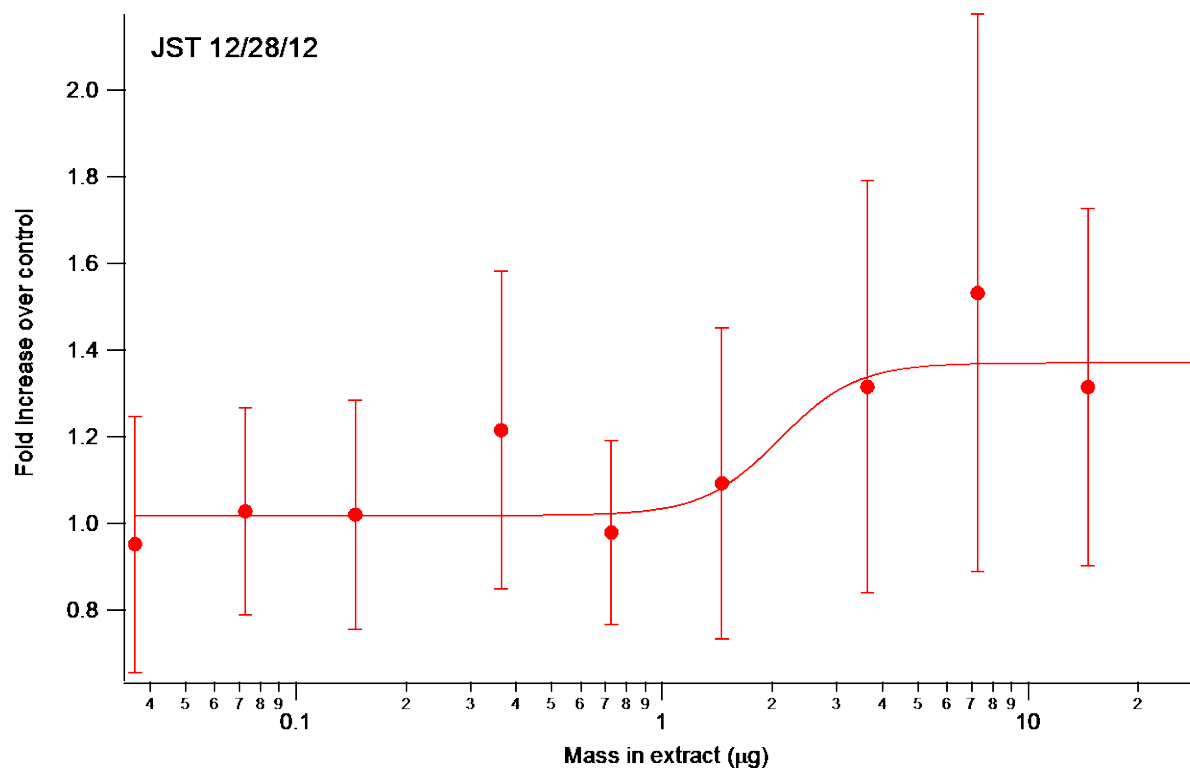


Figure D82. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: JST 12/28/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in μg). ROS/RNS production was measured using NRVM cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

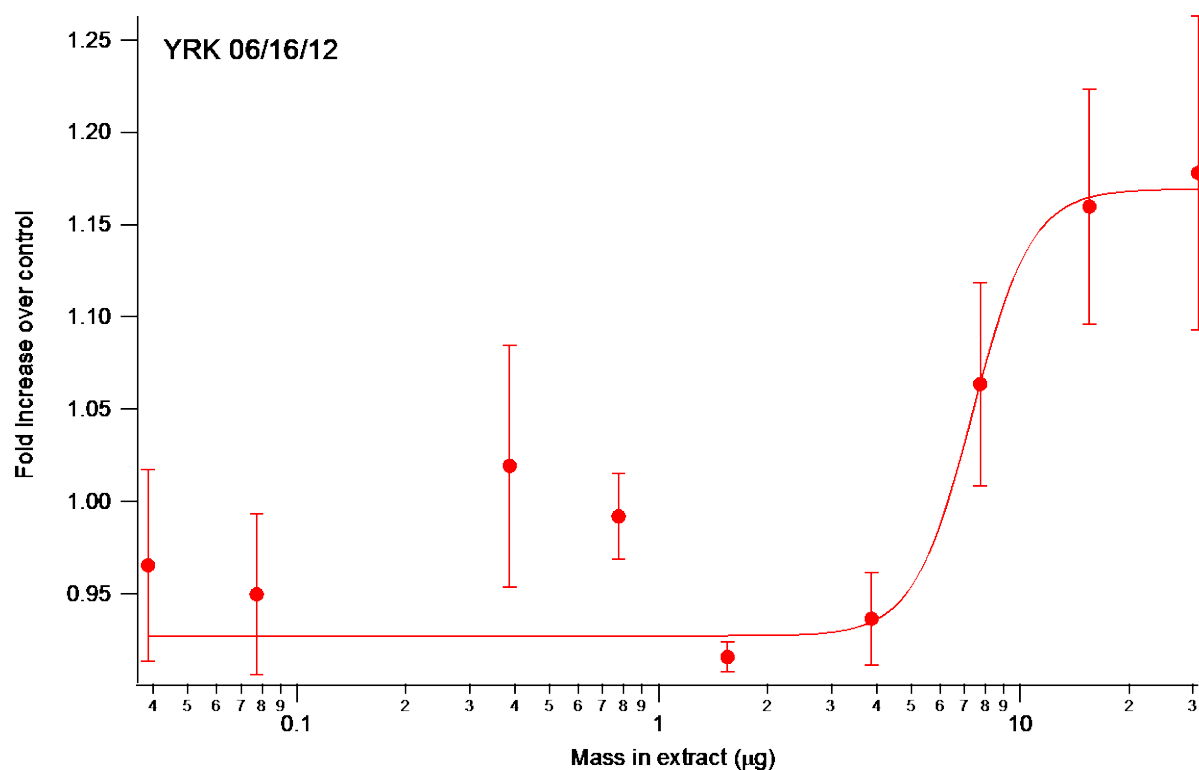


Figure D82. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 06/16/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using NRVM cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

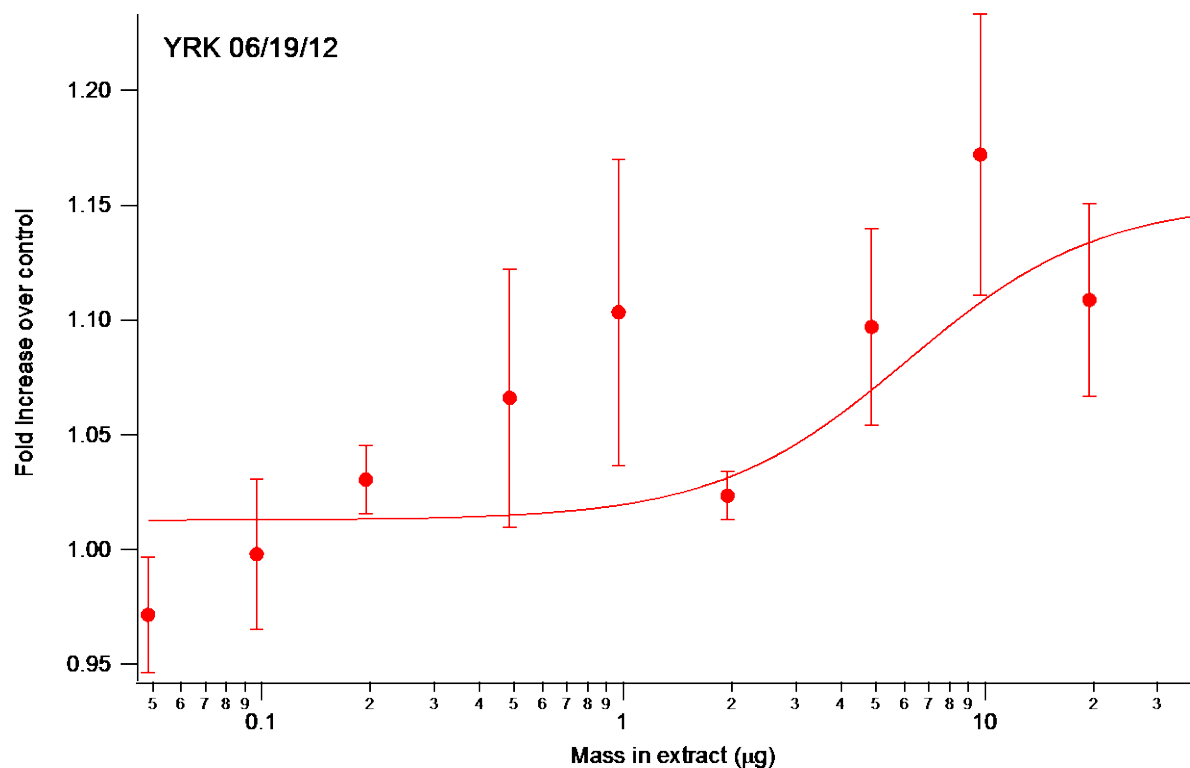


Figure D83. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 06/19/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using NRVM cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

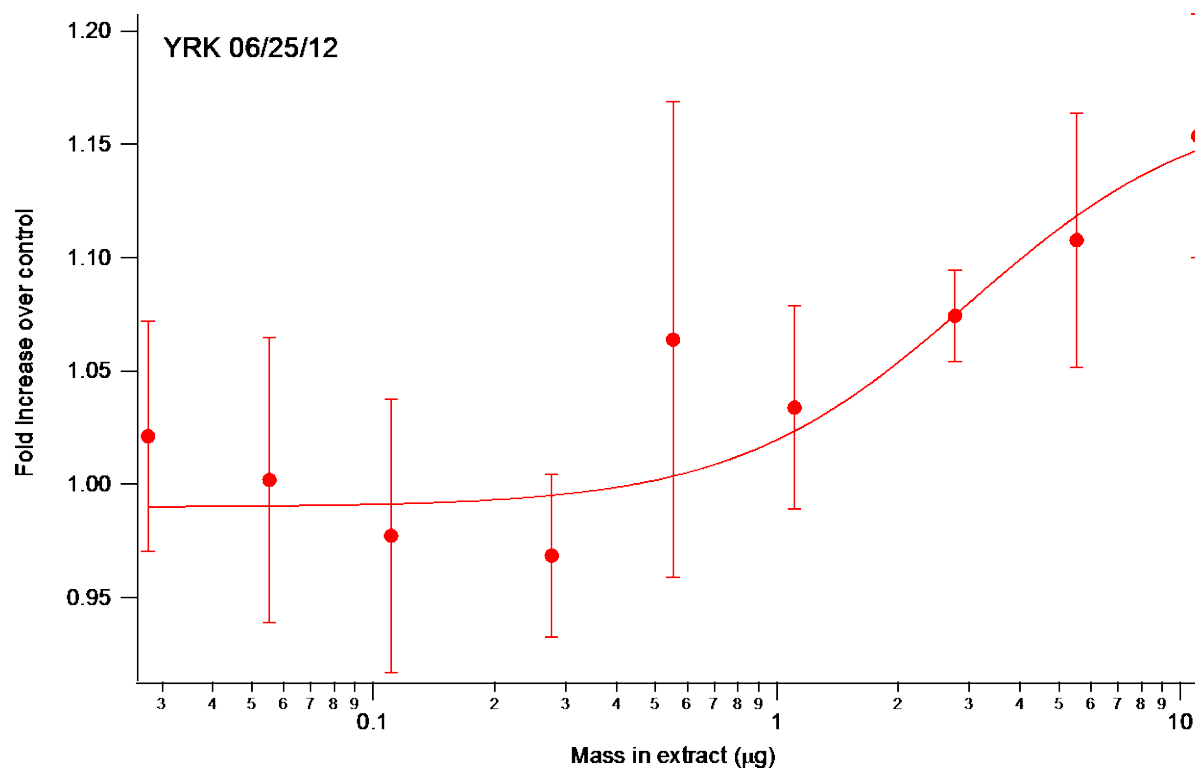


Figure D84. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 06/25/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using NRVM cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

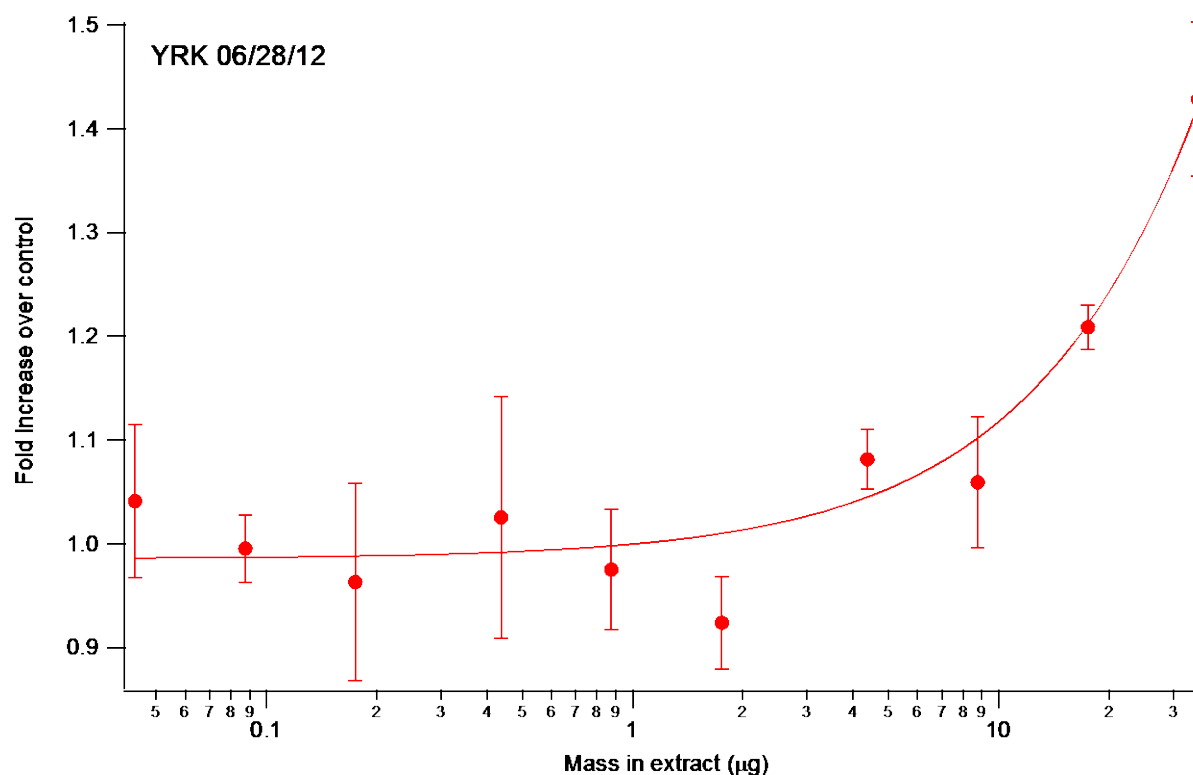


Figure D85. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 06/28/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in μg). ROS/RNS production was measured using NRVM cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

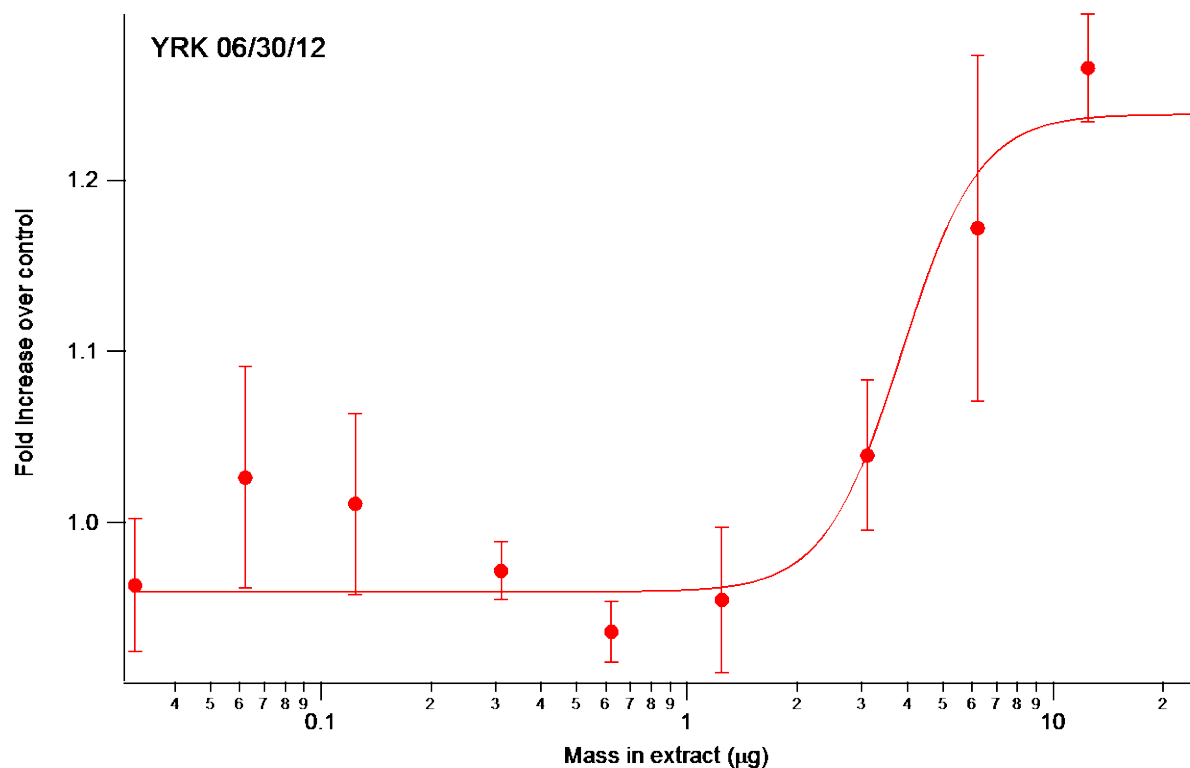


Figure D86. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 06/30/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using NRVM cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

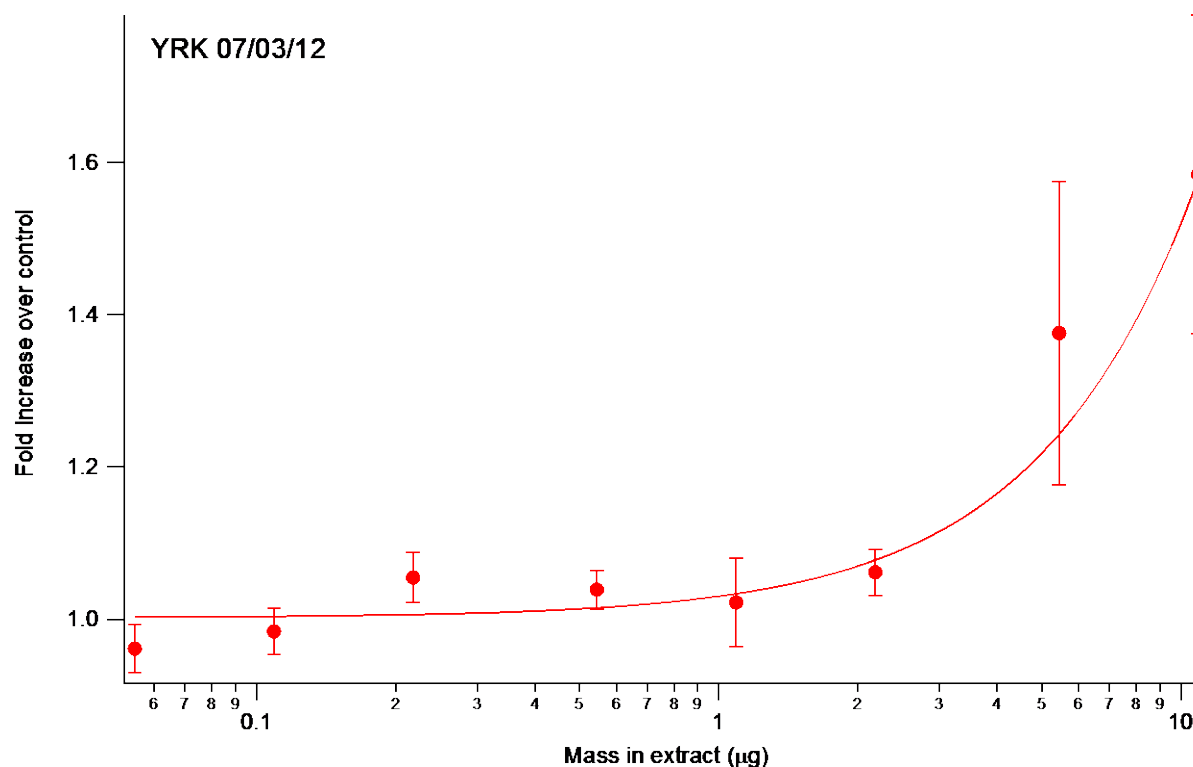


Figure D87. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 07/03/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using NRVM cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

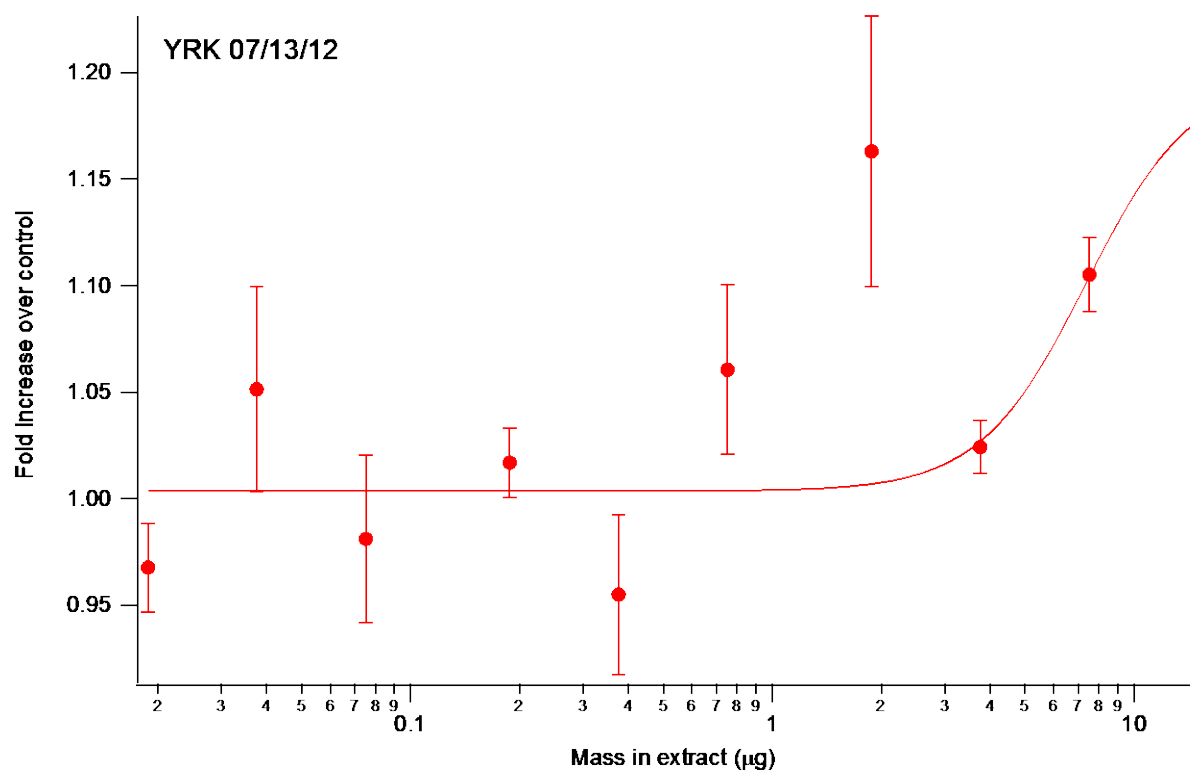


Figure D88. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 07/13/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using NRVM cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

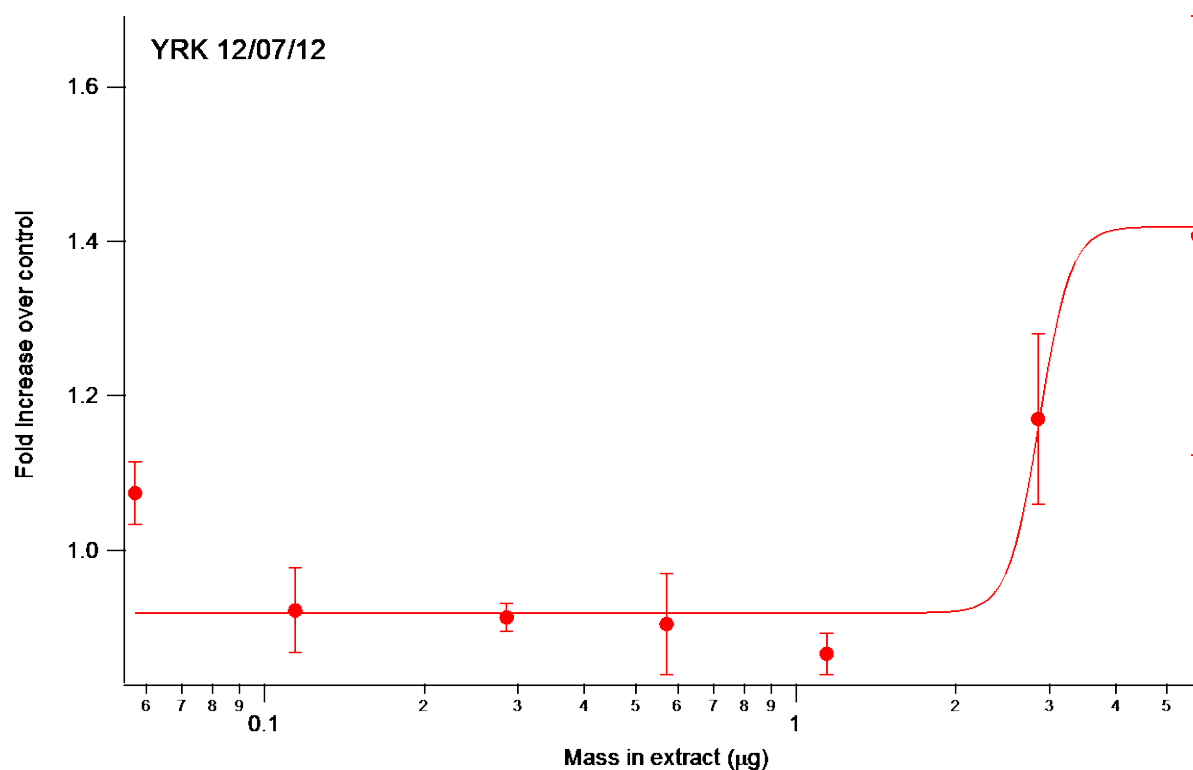


Figure D89. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 12/07/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using NRVM cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

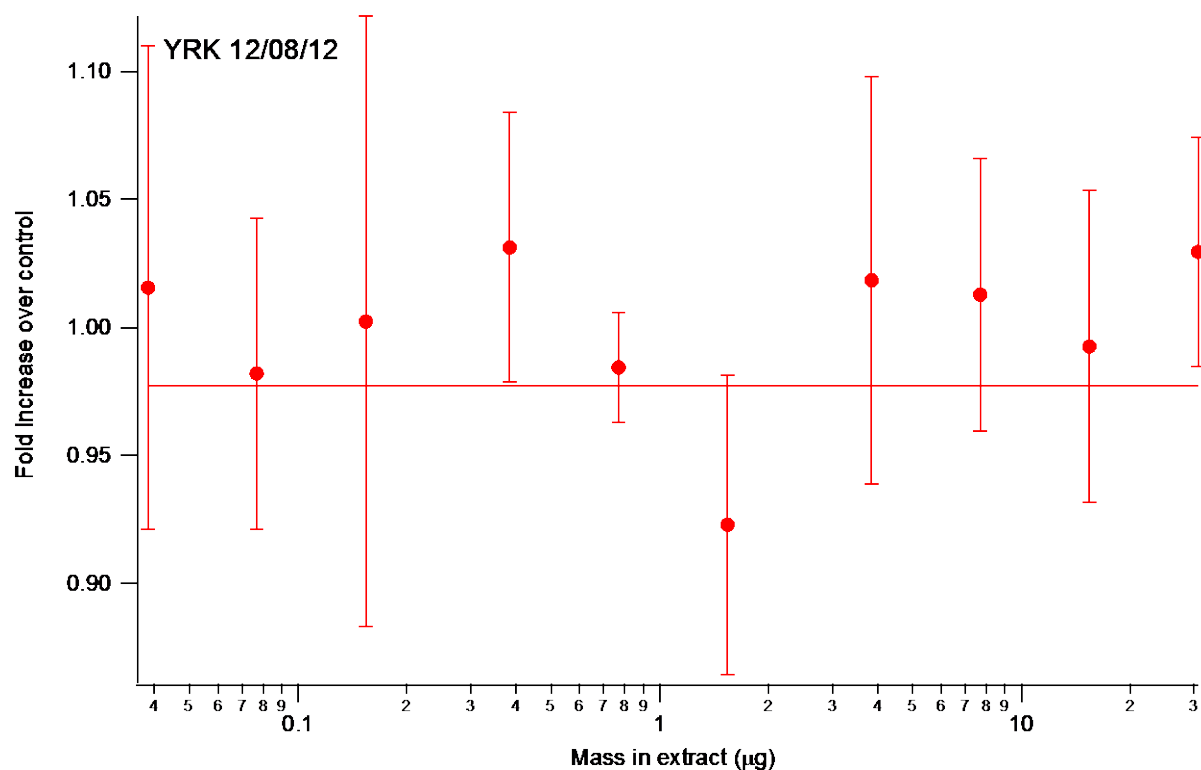


Figure D90. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 12/08/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using NRVM cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

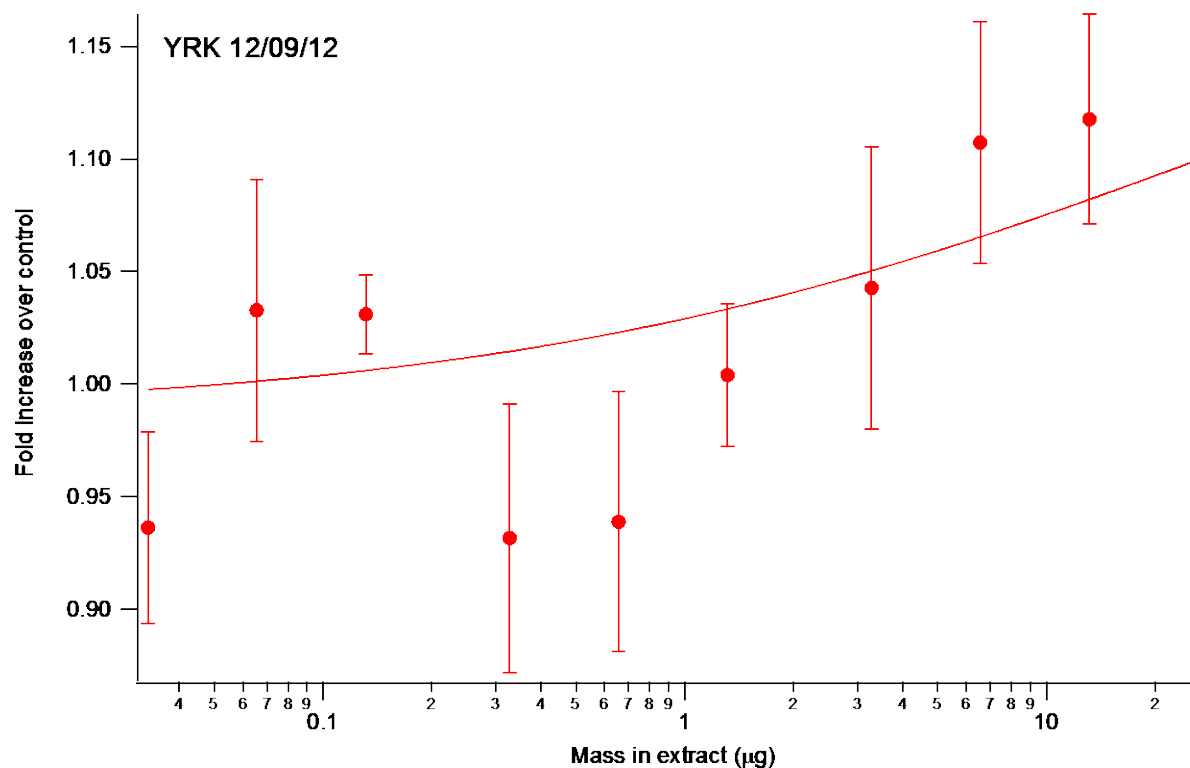


Figure D91. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 12/09/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in μg). ROS/RNS production was measured using NRVM cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

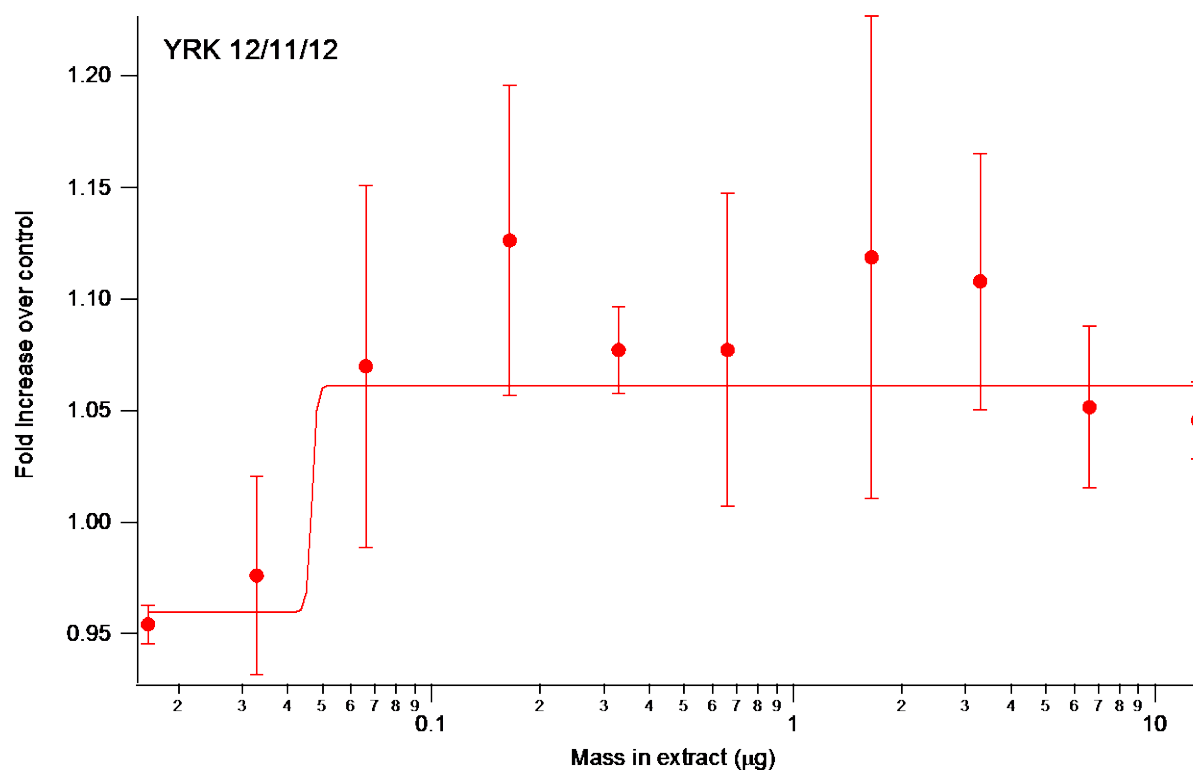


Figure D92. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 12/11/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in μg). ROS/RNS production was measured using NRVM cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

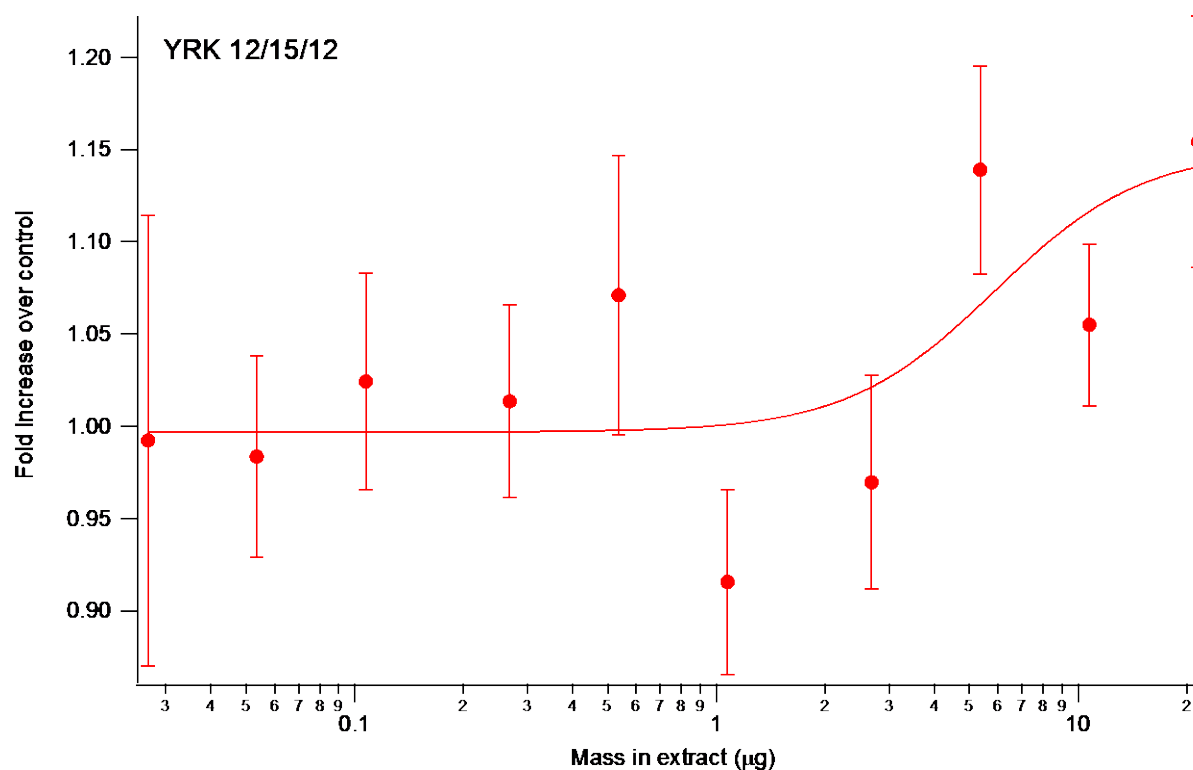


Figure D93. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 12/15/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using NRVM cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

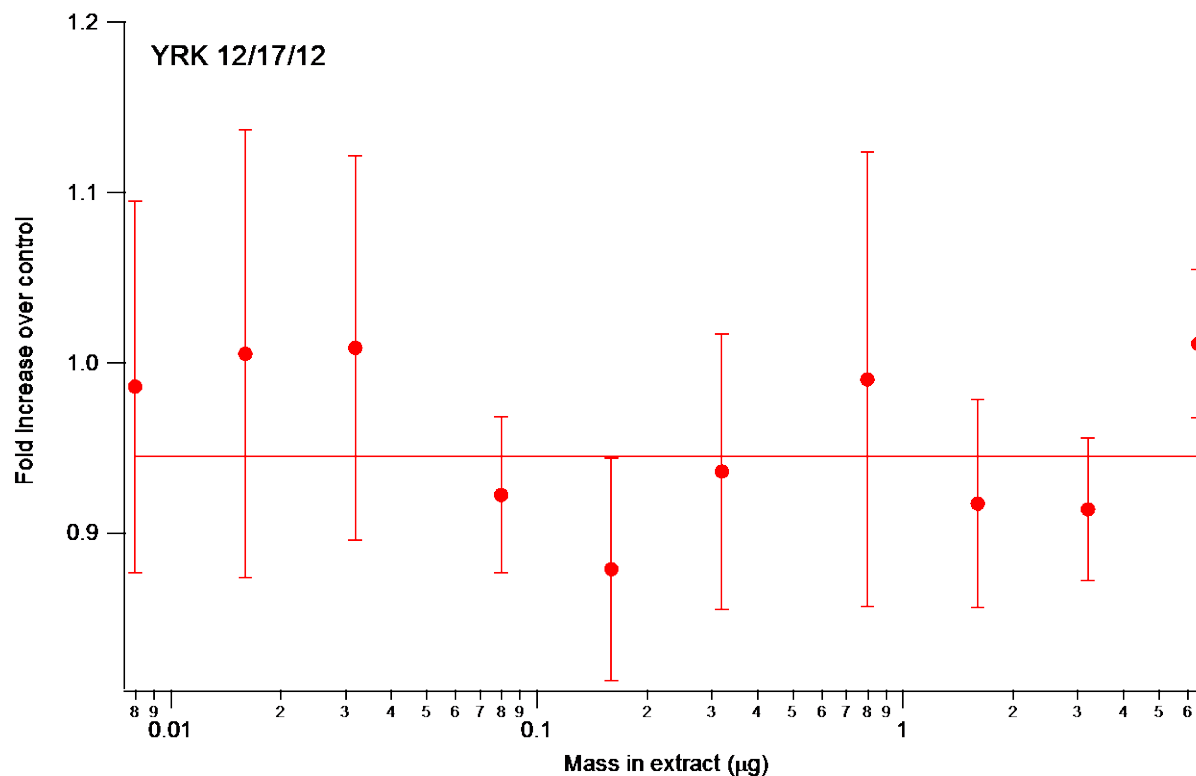


Figure D94. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 12/17/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using NRVM cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

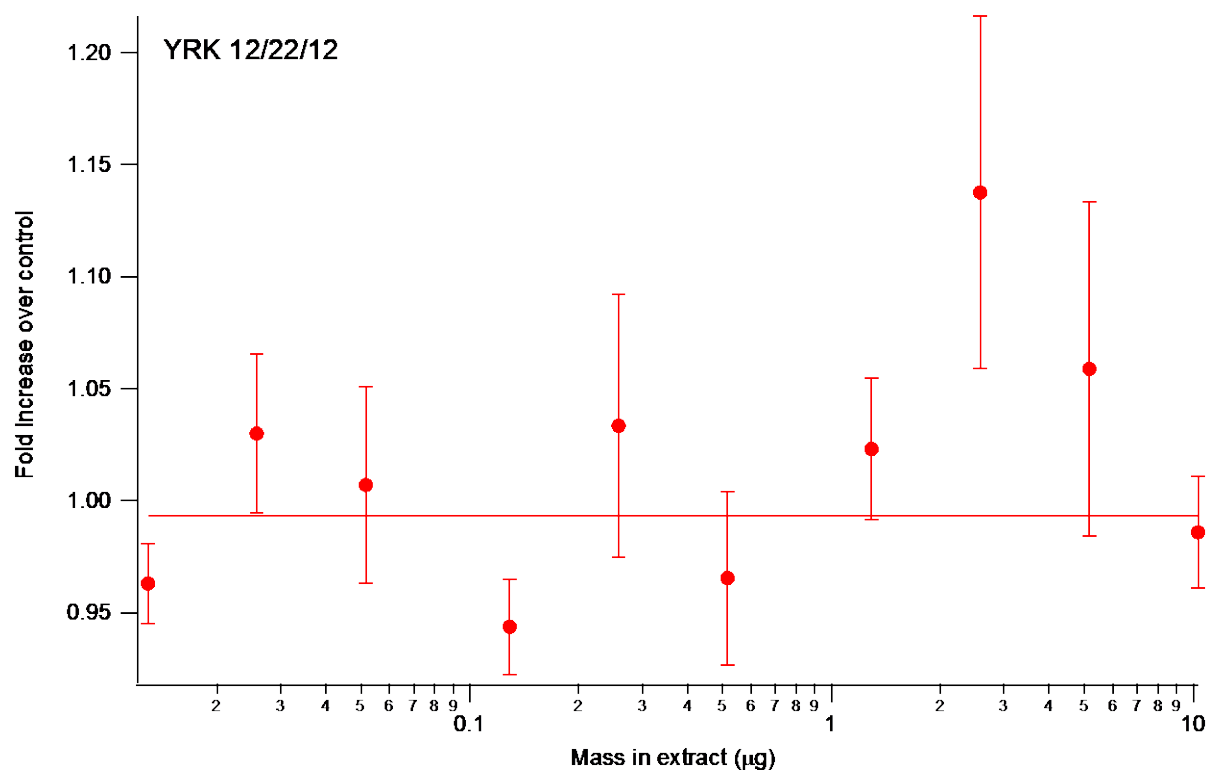


Figure D95. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 12/22/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using NRVM cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

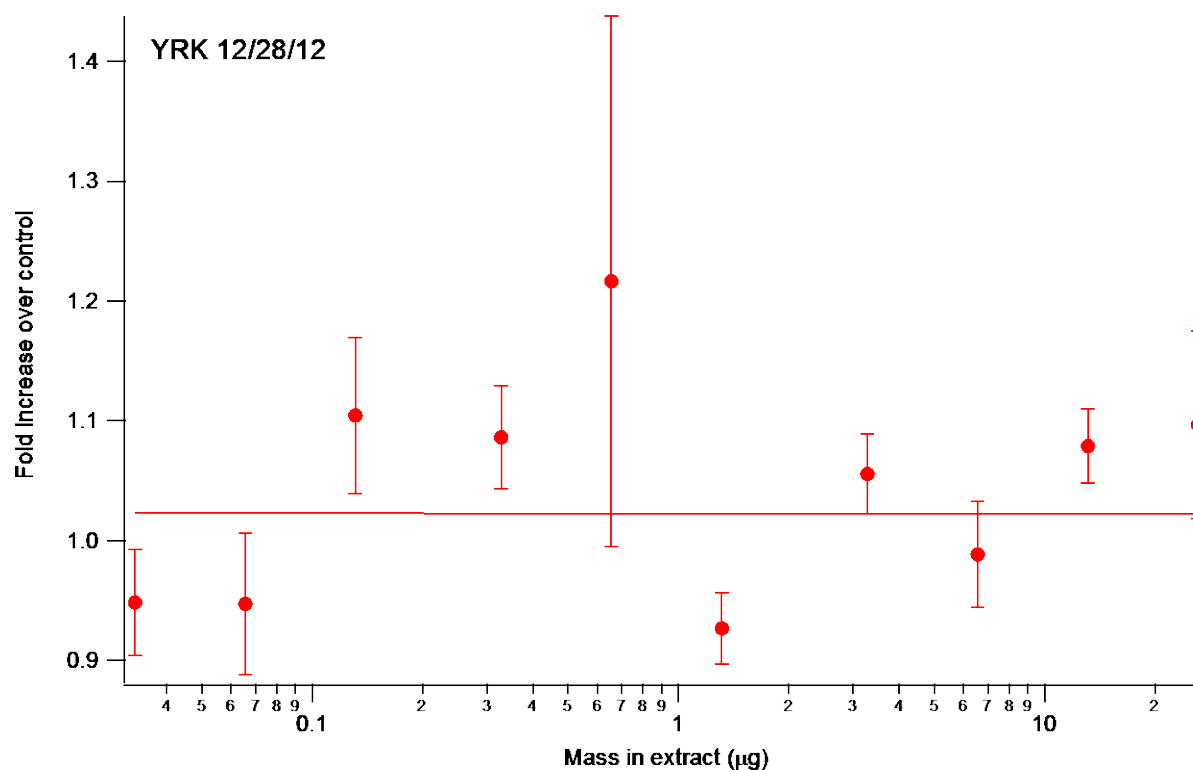


Figure D96. Dose-response curve of ROS/RNS produced as a result of aerosol exposure (filter ID: YRK 12/28/12). ROS/RNS is expressed as the fold increase over control cells (probe-treated cells exposed to stimulant-free media), while dose is expressed as the mass in the extract (given in µg). ROS/RNS production was measured using NRVM cells. Data shown are means \pm standard error of triplicate exposure experiments. The Hill equation was used to fit the dose-response curve.

Table D3. Dose-response metrics (maximum response, EC₅₀, Hill slope, threshold, and extrinsic/intrinsic AUC) for all ambient samples analyzed using neonatal rat ventricular myocytes (NRVM). Ambient samples are named according to collection site and collection date.

Site	Date	Maximum response	EC ₅₀	Hill slope	Threshold	AUC (m ³)	AUC (µg)
JST	06/16/12	1	-	-	23.9	0	0
JST	06/19/12	1	-	-	39.2	0	0
JST	06/25/12	1	-	-	24.1	0	0
JST	07/13/12	1.08	6.15	0.968	20.1	1.03	2.40
JST	12/07/12	1.45	50.8	2.35	66.3	1.01	1.99
JST	12/08/12	1	-	-	31.1	0	0
JST	12/11/12	1.73	38.8	1.04	6.93	1.07	3.48
JST	12/15/12	1	-	-	28.7	0	0
JST	12/17/12	1	-	-	19.8	0	0
JST	12/22/12	1	-	-	9.55	0	0
JST	12/28/12	1.37	2.09	4.14	1.76	1.36	2.19
YRK	06/16/12	1.17	7.38	5.34	7.62	1.16	1.75
YRK	06/19/12	1.13	3.29	2.50	7.02 x 10 ⁻⁴	1.14	1.37
YRK	06/25/12	1.17	3.00	1.48	3.49	1.09	2.29
YRK	06/28/12	12.9	1.01 x 10 ³	0.974	8.30	1.18	1.58
YRK	06/30/12	1.24	3.86	4.10	3.50	1.19	2.23
YRK	07/03/12	59.7	413	1.27	2.72	1.36	1.45
YRK	07/13/12	1.20	7.35	2.97	7.34	1.08	3.36
YRK	12/07/12	1.42	2.88	14.9	2.55	0.852	1.74
YRK	12/08/12	1	-	-	30.8	0	0
YRK	12/09/12	1.23	34.8	0.669	4.29	1.10	1.96
YRK	12/11/12	1.06	0.0467	66.3	0.0458	1.11	3.93
YRK	12/15/12	1.15	5.88	2.11	21.4	1.09	2.37
YRK	12/17/12	1	-	-	6.39	0	0
YRK	12/22/12	1	-	-	10.3	0	0
YRK	12/28/12	1	-	-	26.3	0	0

Table D4. Raw data for all ambient samples analyzed using neonatal rat ventricular myocytes (NRVM). Ambient samples are named according to collection site and collection date. Controls include: no probe (cells not treated with probe, exposed to media only), probe (probe-treated cells exposed to media only), blank filter extract, reference filter extract, LPS, and H₂O₂.

Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0622	0.0636	0.0611	0.0700
Probe		0.0683	0.0786	0.0612	0.0714
Blank		0.0899	0.0700	0.0753	0.0740
Ref		0.0765	0.0774	0.0861	0.0789
LPS		0.0733	0.0729	0.0646	0.0704
H ₂ O ₂		0.0774	0.0816	0.0638	0.0649
JST 06/16/12	23.853	0.0767	0.0766	0.0744	0.0731
	11.926	0.0640	0.0673	0.0777	0.0757
	5.963	0.0614	0.0587	0.0712	0.0745
	2.982	0.0683	0.0686	0.0723	0.0746
	1.193	0.0703	0.0798	0.0614	0.0672
	0.596	0.0737	0.0667	0.0693	0.0654
	0.298	0.0686	0.0670	0.0709	0.0765
	0.119	0.0708	0.0767	0.0738	0.1941
	0.060	0.0646	0.0725	0.0898	0.0727
	0.030	0.0694	0.0717	0.0700	0.0845
Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0802	0.0710	0.2185	0.2725
Probe		0.0705	0.0933	0.2724	0.3340
Blank		0.0790	0.0947	0.1919	0.2400
Ref		0.0789	0.0784	0.2023	0.2770
LPS		0.0816	0.0868	0.1964	0.2017
H ₂ O ₂		0.0835	0.0797	0.1533	0.2642
JST 06/19/12	39.165	0.0840	0.0719	0.1650	0.1803
	19.583	0.0765	0.0804	0.1464	0.1580
	9.791	0.0803	0.0789	0.0945	0.1388
	4.896	0.0675	0.0727	0.1497	0.1529
	1.958	0.0788	0.0660	0.1645	0.1892
	0.979	0.0789	0.0696	0.2182	0.2216
	0.490	0.0743	0.0787	0.2205	0.2119
	0.196	0.0733	0.0733	0.1777	0.1188
	0.098	0.0769	0.0729	0.1945	0.1425
	0.049	0.0721	0.0789	0.1759	0.1246
Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0618	0.0675	0.0571	0.0559
Probe		0.0647	0.0668	0.0600	0.0669
Blank		0.0587	0.0693	0.0624	0.0697
Ref		0.0741	0.0784	0.0719	0.0651
LPS		0.0646	0.0657	0.0582	0.0620
H ₂ O ₂		0.0924	0.0837	0.0727	0.0587

JST 06/20/12	31.273	0.0658	0.0648	0.0619	0.0689
	15.636	0.0713	0.0682	0.0674	0.0742
	7.818	0.0683	0.0615	0.0611	0.0738
	3.909	0.0691	0.0707	0.0998	0.0783
	1.564	0.0762	0.0670	0.0762	0.0630
	0.782	0.0565	0.0699	0.0748	0.0666
	0.391	0.0642	0.0659	0.0610	0.0707
	0.156	0.0707	0.0689	0.0819	0.0755
	0.078	0.0705	0.0752	0.0568	0.0714
	0.039	0.0756	0.0730	0.0689	0.0584
Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0744	0.0574	0.0606	0.0698
Probe		0.1104	0.0624	0.0541	0.0572
Blank		0.0796	0.0732	0.0805	0.0621
Ref		0.0958	0.0766	0.0764	0.0821
LPS		0.0682	0.0733	0.0702	0.0675
H ₂ O ₂		0.1957	0.1969	0.0651	0.0654
JST 06/25/12	24.108	0.0701	0.0687	0.0651	0.0599
	12.054	0.0780	0.0723	0.0678	0.0661
	6.027	0.0711	0.0820	0.0681	0.0714
	3.014	0.0698	0.0686	0.0670	0.0723
	1.205	0.0891	0.0693	0.0726	0.0598
	0.603	0.0522	0.1841	0.0574	0.0736
	0.301	0.0672	0.0753	0.0747	0.0766
	0.121	0.0590	0.1058	0.0698	0.0638
	0.060	0.0772	0.0707	0.0659	0.0802
	0.030	0.0678	0.0743	0.0597	0.0637
Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0622	0.0636	0.0609	0.0503
Probe		0.0683	0.0786	0.0578	0.0589
Blank		0.0899	0.0700	0.0518	0.0599
Ref		0.0765	0.0774	0.0586	0.0686
LPS		0.0733	0.0729	0.0475	0.0517
H ₂ O ₂		0.0774	0.0816	0.0552	0.0460
JST 06/28/12	39.479	0.0745	0.0765	0.0584	0.0565
	19.740	0.0758	0.0655	0.0731	0.0644
	9.870	0.0688	0.0669	0.0645	0.0602
	4.935	0.0700	0.0662	0.0566	0.0499
	1.974	0.0763	0.0691	0.0667	0.0504
	0.987	0.0673	0.0732	0.0680	0.0704
	0.493	0.0716	0.0785	0.0549	0.0542
	0.197	0.0711	0.0704	0.0683	0.0580
	0.099	0.0716	0.0723	0.0612	0.0527
	0.049	0.0723	0.0817	0.0745	0.0576
Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			

No probe		0.0587	0.0563	0.0573	0.0605
Probe		0.0658	0.0599	0.0709	0.0563
Blank		0.0641	0.0606	0.0694	0.0641
Ref		0.0675	0.0797	0.0635	0.0743
LPS		0.0719	0.0762	0.0595	0.0500
H ₂ O ₂		0.0704	0.1138	0.0560	0.0506
JST 06/30/12	46.642	0.0797	0.0707	0.0643	0.0583
	23.321	0.0740	0.0686	0.0591	0.0650
	11.661	0.0705	0.0754	0.0680	0.0604
	5.830	0.0780	0.0699	0.0591	0.0593
	2.332	0.0670	0.0699	0.0629	0.0632
	1.166	0.0661	0.0695	0.0610	0.0592
	0.583	0.0635	0.0743	0.0647	0.0655
	0.233	0.0714	0.0718	0.0635	0.0656
	0.117	0.0814	0.0752	0.0629	0.0597
	0.058	0.0706	0.0695	0.0580	0.0602
Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0658	0.0630	0.0571	0.0559
Probe		0.0846	0.0801	0.0600	0.0669
Blank		0.0938	0.0805	0.0624	0.0697
Ref		0.1169	0.0901	0.0719	0.0651
LPS		0.0838	0.0930	0.0582	0.0620
H ₂ O ₂		0.0973	0.1047	0.0727	0.0587
JST 07/03/12	42.341	0.0695	0.0736	0.0648	0.0641
	21.171	0.0807	0.0773	0.0759	0.0726
	10.585	0.0727	0.0684	0.0672	0.0784
	5.293	0.0772	0.0727	0.0613	0.0695
	2.117	0.0723	0.0760	0.0623	0.0705
	1.059	0.0710	0.0703	0.0611	0.0588
	0.529	0.0625	0.0633	0.0766	0.0641
	0.212	0.0665	0.0731	0.0789	0.0679
	0.106	0.0792	0.0892	0.0646	0.0559
	0.053	0.0813	0.0887	0.0619	0.0790
Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0636	0.0669	0.0602	0.0636
Probe		0.0631	0.0659	0.0594	0.0624
Blank		0.0647	0.0632	0.0657	0.0685
Ref		0.0709	0.0677	0.0697	0.0695
LPS		0.0636	0.0585	0.0573	0.0700
H ₂ O ₂		0.0691	0.0800	0.0510	0.0651
JST 07/13/12	20.077	0.0700	0.0675	0.0710	0.0718
	10.038	0.0635	0.0660	0.0709	0.0662
	5.019	0.0679	0.0720	0.0725	0.0634
	2.510	0.0655	0.0647	0.0721	0.0654
	1.004	0.0659	0.0638	0.0635	0.0659

	0.502	0.0639	0.0688	0.0623	0.0687
	0.251	0.0606	0.0606	0.0652	0.0620
	0.100	0.0652	0.0664	0.0695	0.0623
	0.050	0.0587	0.0654	0.0782	0.0654
	0.025	0.0722	0.0612	0.0638	0.0633
Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0587	0.0563	0.0609	0.0503
Probe		0.0658	0.0599	0.0578	0.0589
Blank		0.0641	0.0606	0.0518	0.0599
Ref		0.0675	0.0797	0.0586	0.0686
LPS		0.0719	0.0762	0.0475	0.0517
H ₂ O ₂		0.0704	0.1138	0.0552	0.0460
JST 12/07/12	23.687	0.0720	0.0766	0.0594	0.0632
	11.844	0.0684	0.0641	0.0659	0.0601
	5.922	0.0760	0.0767	0.0512	0.0544
	2.961	0.0676	0.0854	0.0584	0.0485
	1.184	0.0847	0.0836	0.0451	0.0560
	0.592	0.0632	0.0641	0.0541	0.0669
	0.296	0.0659	0.0919	0.0543	0.0549
	0.118	0.0663	0.0702	0.0538	0.0574
	0.059	0.0735	0.0790	0.0479	0.0569
	0.030	0.0663	0.0704	0.0574	0.0640
Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0658	0.0630	0.0573	0.0605
Probe		0.0846	0.0801	0.0709	0.0563
Blank		0.0938	0.0805	0.0694	0.0641
Ref		0.1169	0.0901	0.0635	0.0743
LPS		0.0838	0.0930	0.0595	0.0500
H ₂ O ₂		0.0973	0.1047	0.0560	0.0506
JST 12/08/12	31.164	0.0638	0.0693	0.0731	0.0638
	15.582	0.0656	0.0624	0.0673	0.0616
	7.791	0.0749	0.0861	0.0686	0.0641
	3.895	0.0832	0.1093	0.2700	0.0588
	1.558	0.0803	0.1180	0.0593	0.0626
	0.779	0.0673	0.0805	0.0617	0.0720
	0.390	0.0680	0.0853	0.0680	0.0627
	0.156	0.0791	0.1215	0.0639	0.0600
	0.078	0.1036	0.0727	0.0598	0.0594
	0.039	0.0793	0.0744	0.0648	0.0644
Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0708	0.0771	0.0655	0.0588
Probe		0.0800	0.0832	0.0641	0.0958
Blank		0.0783	0.0812	0.0698	0.0806
Ref		0.0892	0.3799	0.0796	0.0779
LPS		0.0806	0.0882	0.0831	0.0823

H ₂ O ₂		0.0777	0.0903	0.1803	0.1677
JST 12/11/12	14.353	0.0926	0.0874	0.0732	0.0781
	7.176	0.0800	0.0787	0.0730	0.0706
	3.588	0.0780	0.0728	0.0690	0.0661
	1.794	0.0777	0.0711	0.0676	0.0629
	0.718	0.0811	0.0827	0.0613	0.0575
	0.359	0.0778	0.0805	0.0633	0.0674
	0.179	0.0674	0.0697	0.0614	0.0581
	0.072	0.0771	0.0956	0.0679	0.0645
	0.036	0.0648	0.0764	0.0909	0.0583
	0.018	0.0713	0.0901	0.0601	0.0511

Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0802	0.0710	0.0611	0.0700
Probe		0.0705	0.0933	0.0612	0.0714
Blank		0.0790	0.0947	0.0753	0.0740
Ref		0.0789	0.0784	0.0861	0.0789
LPS		0.0816	0.0868	0.0646	0.0704
H ₂ O ₂		0.0835	0.0797	0.0638	0.0649
JST 12/15/12	28.736	0.0691	0.0759	0.0719	0.0708
	14.368	0.0725	0.0824	0.0659	0.3022
	7.184	0.0675	0.0691	0.0690	0.0719
	3.592	0.0639	0.0745	0.0695	0.0682
	1.437	0.0648	0.0705	0.0716	0.0691
	0.718	0.0774	0.0659	0.0697	0.0613
	0.359	0.0738	0.0610	0.0693	0.0618
	0.144	0.0782	0.0775	0.0702	0.0635
	0.072	0.0701	0.0729	0.0678	0.0746
	0.036	0.0690	0.0727	0.0670	0.0647

Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0744	0.0574	0.0602	0.0636
Probe		0.1104	0.0624	0.0594	0.0624
Blank		0.0796	0.0732	0.0657	0.0685
Ref		0.0958	0.0766	0.0697	0.0695
LPS		0.0682	0.0733	0.0573	0.0700
H ₂ O ₂		0.1957	0.1969	0.0510	0.0651
JST 12/17/12	19.813	0.0647	0.0854	0.0665	0.0585
	9.906	0.0608	0.0618	0.0645	0.0671
	4.953	0.0589	0.0626	0.0696	0.0701
	2.477	0.0660	0.0667	0.0604	0.0538
	0.991	0.0637	0.0592	0.0564	0.0627
	0.495	0.0620	0.0768	0.0667	0.0698
	0.248	0.0585	0.0675	0.0640	0.0642
	0.099	0.0592	0.0739	0.0618	0.0696
	0.050	0.0586	0.0578	0.0701	0.0705
	0.025	0.0795	0.0659	0.0815	0.0642

Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0618	0.0675	0.0606	0.0698
Probe		0.0647	0.0668	0.0541	0.0572
Blank		0.0587	0.0693	0.0805	0.0621
Ref		0.0741	0.0784	0.0764	0.0821
LPS		0.0646	0.0657	0.0702	0.0675
H ₂ O ₂		0.0924	0.0837	0.0651	0.0654
JST 12/22/12	9.547	0.0623	0.0719	0.0750	0.0776
	4.773	0.0683	0.0693	0.0835	0.0824
	2.387	0.0667	0.0705	0.0705	0.0723
	1.193	0.0692	0.0985	0.0717	0.0750
	0.477	0.0562	0.0918	0.0746	0.0690
	0.239	0.0688	0.0874	0.0664	0.0752
	0.119	0.0762	0.0703	0.0704	0.1326
	0.048	0.0747	0.0651	0.0671	0.0716
	0.024	0.0734	0.0786	0.0678	0.0681
	0.012	0.0804	0.1730	0.0722	0.0653
Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0636	0.0669	0.2185	0.2725
Probe		0.0631	0.0659	0.2724	0.3340
Blank		0.0647	0.0632	0.1919	0.2400
Ref		0.0709	0.0677	0.2023	0.2770
LPS		0.0636	0.0585	0.1964	0.2017
H ₂ O ₂		0.0691	0.0800	0.1533	0.2642
JST 12/28/12	29.090	0.0723	0.0644	0.2416	0.2326
	14.545	0.0687	0.0706	0.2524	0.1924
	7.273	0.0629	0.0669	0.3672	0.1839
	3.636	0.0646	0.0691	0.2898	0.1608
	1.455	0.0622	0.0684	0.2347	0.1202
	0.727	0.0678	0.0683	0.1474	0.1514
	0.364	0.0630	0.0681	0.1858	0.2230
	0.145	0.0649	0.0688	0.1885	0.1308
	0.073	0.0675	0.0703	0.1717	0.1471
	0.036	0.0654	0.0615	0.2018	0.0941
Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0596	0.0704	0.0707	0.1229
Probe		0.0667	0.0635	0.0677	0.0767
Blank		0.0707	0.0729	0.1006	0.1756
Ref		0.0764	0.0722	0.2189	0.3128
LPS		0.0627	0.0736	0.0783	0.0930
H ₂ O ₂		0.0813	0.0878	0.1203	0.2968
YRK 06/16/12	30.975	0.0778	0.0749	0.1004	0.0948
	15.488	0.0730	0.0840	0.0935	0.0921
	7.744	0.0779	0.0721	0.0740	0.0902
	3.872	0.0682	0.0715	0.0643	0.0726

	1.549	0.0670	0.0693	0.0676	0.0665
	0.774	0.0686	0.0728	0.0764	0.0752
	0.387	0.0680	0.0667	0.0795	0.0869
	0.155	0.0675	0.0697	0.0978	0.0854
	0.077	0.0617	0.0696	0.0724	0.0769
	0.039	0.0640	0.0653	0.0784	0.0774
Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0705	0.0699	0.0739	0.0745
Probe		0.0835	0.0654	0.0790	0.0753
Blank		0.0620	0.0740	0.0989	0.0841
Ref		0.0969	0.0822	0.1129	0.1170
LPS		0.0673	0.0772	0.1214	0.0957
H ₂ O ₂		0.0838	0.0510	0.1007	0.1052
YRK 06/19/12	38.837	0.0788	0.0811	0.0861	0.0867
	19.418	0.0893	0.0756	0.0787	0.0779
	9.709	0.0966	0.0750	0.0840	0.0843
	4.855	0.0832	0.0704	0.0835	0.0811
	1.942	0.0720	0.0753	0.0752	0.0743
	0.971	0.0763	0.0710	0.0936	0.0791
	0.485	0.0716	0.0700	0.0876	0.0801
	0.194	0.0718	0.0770	0.0749	0.0751
	0.097	0.0686	0.0790	0.0694	0.0724
	0.049	0.0744	0.0715	0.0703	0.0656
Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0714	0.0699	0.0660	0.0551
Probe		0.0770	0.0816	0.0748	0.0847
Blank		0.0869	0.0813	0.0869	0.0754
Ref		0.0944	0.3761	0.0805	0.0833
LPS		0.0871	0.5128	0.0741	0.0805
H ₂ O ₂		0.0959	0.4075	0.0969	0.1014
YRK 06/25/12	22.117	0.0855	0.0830	0.0802	0.0773
	11.059	0.0871	0.1049	0.0930	0.0861
	5.529	0.0995	0.0939	0.0824	0.0806
	2.765	0.0873	0.0895	0.0869	0.0819
	1.106	0.0844	0.0839	0.0908	0.0734
	0.553	0.0880	0.1045	0.0634	0.0863
	0.276	0.0816	0.0823	0.0779	0.0697
	0.111	0.0884	0.0842	0.0749	0.0668
	0.055	0.0893	0.0846	0.0824	0.0660
	0.028	0.0837	0.0801	0.0921	0.0725
Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0677	0.0687	0.0554	0.0551
Probe		0.0681	0.0766	0.0684	0.0632
Blank		0.0707	0.0724	0.0698	0.0767
Ref		0.0742	0.0804	0.0710	0.0826

LPS		0.0698	0.0680	0.0761	0.0981
H ₂ O ₂		0.0745	0.0715	0.1264	0.2442
YRK 06/28/12	35.022	0.1029	0.1082	0.0868	0.0905
	17.511	0.0820	0.0783	0.0837	0.0850
	8.756	0.0771	0.0815	0.0647	0.0647
	4.378	0.0731	0.0781	0.0687	0.0743
	1.751	0.0714	0.0576	0.0623	0.0599
	0.876	0.0723	0.0739	0.0590	0.0600
	0.438	0.0687	0.0924	0.0585	0.0593
	0.175	0.0670	0.0831	0.0551	0.0567
	0.088	0.0637	0.0716	0.0714	0.0640
	0.044	0.0717	0.0844	0.0614	0.0657

Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0654	0.0659	0.0722	0.0751
Probe		0.0746	0.0828	0.0659	0.0770
Blank		0.0727	0.0751	0.0778	0.0718
Ref		0.0902	0.0909	0.0740	0.0893
LPS		0.0809	0.0732	0.0743	0.0723
H ₂ O ₂		0.0853	0.0769	0.0772	0.0947
YRK 06/30/12	24.877	0.0849	0.0879	0.0906	0.1005
	12.438	0.1021	0.0967	0.0905	0.0981
	6.219	0.1113	0.0903	0.0782	0.0789
	3.110	0.0822	0.0877	0.0752	0.0730
	1.244	0.0721	0.0812	0.0736	0.0653
	0.622	0.0756	0.0706	0.0704	0.0699
	0.311	0.0769	0.0707	0.0752	0.0746
	0.124	0.0796	0.0774	0.0665	0.0859
	0.062	0.0929	0.0746	0.0703	0.0762
	0.031	0.0743	0.0818	0.0680	0.0708

Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0776	0.0724	0.1140	0.0572
Probe		0.0795	0.0790	0.0594	0.0647
Blank		0.0711	0.0790	0.0790	0.0789
Ref		0.0904	0.0890	0.1000	0.1907
LPS		0.0809	0.0743	0.0776	0.0898
H ₂ O ₂		0.0894	0.0703	0.0961	0.1058
YRK 07/03/12	43.571	0.0848	0.0932	0.0867	0.0885
	21.786	0.1044	0.0839	0.0815	0.0805
	10.893	0.1030	0.0816	0.1495	0.1014
	5.446	0.0807	0.0756	0.1350	0.0870
	2.179	0.0768	0.0754	0.0674	0.0722
	1.089	0.0755	0.0786	0.0644	0.0625
	0.545	0.0725	0.0757	0.0695	0.0679
	0.218	0.0668	0.0780	0.0729	0.0724
	0.109	0.0736	0.0653	0.0672	0.0646

	0.054	0.0688	0.0705	0.0638	0.0612
Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0596	0.0704	0.0618	0.0629
Probe		0.0667	0.0635	0.0603	0.0651
Blank		0.0707	0.0729	0.0650	0.0697
Ref		0.0764	0.0722	0.0790	0.0809
LPS		0.0627	0.0736	0.0809	0.0830
H ₂ O ₂		0.0813	0.0878	0.0957	0.1140
YRK 07/13/12	15.027	0.0807	0.0787	0.0761	0.0808
	7.514	0.0761	0.0759	0.0738	0.0712
	3.757	0.0701	0.0672	0.0705	0.0675
	1.878	0.0709	0.0766	0.0904	0.0746
	0.751	0.0649	0.0755	0.0688	0.0759
	0.376	0.0713	0.0642	0.0608	0.0603
	0.188	0.0681	0.0659	0.0712	0.0682
	0.075	0.0703	0.0705	0.0626	0.0602
	0.038	0.0658	0.0753	0.0770	0.0644
	0.019	0.0616	0.0678	0.0666	0.0641
Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0714	0.0699	0.0707	0.1229
Probe		0.0770	0.0816	0.0677	0.0767
Blank		0.0869	0.0813	0.2189	0.3128
Ref		0.0944	0.3761	0.1006	0.1756
LPS		0.0871	0.5128	0.0783	0.0930
H ₂ O ₂		0.0959	0.4075	0.1203	0.2968
YRK 12/07/12	22.855	0.1009	0.0918	0.0850	0.0822
	11.427	0.1015	0.0822	0.0925	0.0733
	5.714	0.0813	0.0877	0.1878	0.1504
	2.857	0.0817	0.1021	0.1300	0.1078
	1.143	0.0845	0.0756	0.0733	0.0787
	0.571	0.0828	0.0966	0.0779	0.0685
	0.286	0.0865	0.0831	0.0788	0.0805
	0.114	0.0862	0.0723	0.0952	0.0787
	0.057	0.0969	0.1046	0.0987	0.0869
	0.029	0.0849	0.0960	0.2348	0.1754
Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0776	0.0724	0.0618	0.0629
Probe		0.0795	0.0790	0.0603	0.0651
Blank		0.0711	0.0790	0.0650	0.0697
Ref		0.0904	0.0890	0.0790	0.0809
LPS		0.0809	0.0743	0.0809	0.0830
H ₂ O ₂		0.0894	0.0703	0.0957	0.1140
YRK 12/08/12	30.748	0.0707	0.0828	0.0719	0.0686
	15.374	0.0754	0.0806	0.0661	0.0614
	7.687	0.0769	0.0760	0.0754	0.0609

	3.844	0.0797	0.0850	0.0624	0.0637
	1.537	0.0700	0.0754	0.0571	0.0610
	0.769	0.0733	0.0724	0.0680	0.0673
	0.384	0.0756	0.0834	0.0684	0.0671
	0.154	0.0760	0.0931	0.0539	0.0632
	0.077	0.0804	0.0735	0.0608	0.0656
	0.038	0.0748	0.0907	0.0630	0.0615
Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0744	0.0734	0.0655	0.0588
Probe		0.0778	0.0718	0.0641	0.0958
Blank		0.1091	0.0794	0.0698	0.0806
Ref		0.0974	0.0922	0.0796	0.0779
LPS		0.1432	0.0935	0.0831	0.0823
H ₂ O ₂		0.0746	0.0838	0.1803	0.1677
YRK 12/09/12	26.232	0.0891	0.0843	0.0744	0.0741
	13.116	0.0808	0.0902	0.0879	0.0749
	6.558	0.0941	0.0813	0.0755	0.0798
	3.279	0.0889	0.0821	0.0725	0.0681
	1.312	0.0802	0.0774	0.0726	0.0697
	0.656	0.0810	0.0730	0.0627	0.0637
	0.328	0.0806	0.0726	0.0646	0.0605
	0.131	0.0782	0.0801	0.0747	0.0749
	0.066	0.0809	0.0876	0.0697	0.0703
	0.033	0.0780	0.0712	0.0677	0.0628
Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0677	0.0687	0.0739	0.0745
Probe		0.0681	0.0766	0.0790	0.0753
Blank		0.0707	0.0724	0.0989	0.0841
Ref		0.0742	0.0804	0.1129	0.1170
LPS		0.0698	0.0680	0.1214	0.0957
H ₂ O ₂		0.0745	0.0715	0.1007	0.1052
YRK 12/11/12	13.162	0.0774	0.0787	0.0732	0.0747
	6.581	0.0689	0.0784	0.0776	0.0809
	3.290	0.0726	0.0742	0.0889	0.0864
	1.645	0.0714	0.0683	0.1030	0.0825
	0.658	0.0699	0.0708	0.0916	0.0809
	0.329	0.0770	0.0755	0.0787	0.0821
	0.165	0.0741	0.0779	0.0966	0.0789
	0.066	0.0766	0.0784	0.0924	0.0636
	0.033	0.0676	0.0734	0.0788	0.0642
	0.016	0.0695	0.0677	0.0708	0.0695
Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0705	0.0699	0.0554	0.0551
Probe		0.0835	0.0654	0.0684	0.0632
Blank		0.0620	0.0740	0.0698	0.0767

Ref		0.0969	0.0822	0.0710	0.0826
LPS		0.0673	0.0772	0.0761	0.0981
H ₂ O ₂		0.0838	0.0510	0.1264	0.2442
YRK 12/15/12	21.438	0.0734	0.0915	0.0716	0.0850
	10.719	0.0816	0.0737	0.0671	0.0715
	5.359	0.0786	0.0784	0.0897	0.0705
	2.680	0.0636	0.0796	0.0637	0.0631
	1.072	0.0680	0.0696	0.0633	0.0541
	0.536	0.0789	0.0861	0.0613	0.0720
	0.268	0.0713	0.0781	0.0606	0.0722
	0.107	0.0797	0.0769	0.0656	0.0631
	0.054	0.0743	0.0757	0.0616	0.0623
	0.027	0.0687	0.0927	0.0622	0.0528
Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0744	0.0734	0.1140	0.0572
Probe		0.0778	0.0718	0.0594	0.0647
Blank		0.1091	0.0794	0.0790	0.0789
Ref		0.0974	0.0922	0.1000	0.1907
LPS		0.1432	0.0935	0.0776	0.0898
H ₂ O ₂		0.0746	0.0838	0.0961	0.1058
YRK 12/17/12	6.386	0.0781	0.0757	0.0678	0.0836
	3.193	0.0733	0.0755	0.0632	0.0638
	1.597	0.0747	0.0792	0.0626	0.0603
	0.798	0.0857	0.0976	0.0579	0.0576
	0.319	0.0835	0.0787	0.0609	0.0594
	0.160	0.0661	0.0798	0.0564	0.0629
	0.080	0.0784	0.0713	0.0662	0.0625
	0.032	0.0913	0.0894	0.0565	0.0673
	0.016	0.0985	0.0864	0.0585	0.0599
	0.008	0.0912	0.0859	0.0610	0.0595
Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0708	0.0771	0.0722	0.0751
Probe		0.0800	0.0832	0.0659	0.0770
Blank		0.0783	0.0812	0.0778	0.0718
Ref		0.0892	0.3799	0.0740	0.0893
LPS		0.0806	0.0882	0.0743	0.0723
H ₂ O ₂		0.0777	0.0903	0.0772	0.0947
YRK 12/22/12	10.314	0.0798	0.0751	0.0709	0.0730
	5.157	0.0923	0.0786	0.0845	0.0655
	2.579	0.0915	0.0783	0.1004	0.0747
	1.289	0.0847	0.0742	0.0755	0.0758
	0.516	0.0792	0.0759	0.0656	0.0718
	0.258	0.0900	0.0769	0.0781	0.0683
	0.129	0.0723	0.0757	0.0694	0.0686
	0.052	0.0818	0.0717	0.0822	0.0695

	0.026	0.0704	0.0823	0.0780	0.0814
	0.013	0.0725	0.0768	0.0705	0.0721
Sample	Dose (µg/33,333 cells)	ROS/RNS (f.u.)			
No probe		0.0654	0.0659	0.0660	0.0551
Probe		0.0746	0.0828	0.0748	0.0847
Blank		0.0727	0.0751	0.0869	0.0754
Ref		0.0902	0.0909	0.0805	0.0833
LPS		0.0809	0.0732	0.0741	0.0805
H ₂ O ₂		0.0853	0.0769	0.0969	0.1014
YRK 12/28/12	26.248	0.0898	0.0910	0.0731	0.0685
	13.124	0.0818	0.0787	0.0834	0.0731
	6.562	0.0784	0.0779	0.0686	0.0656
	3.281	0.0761	0.0847	0.0739	0.0756
	1.312	0.0738	0.0669	0.0683	0.0634
	0.656	0.1379	0.0781	0.0720	0.0695
	0.328	0.0829	0.0863	0.0717	0.0783
	0.131	0.0724	0.0796	0.0780	0.0947
	0.066	0.0632	0.0807	0.0623	0.0722
	0.033	0.0721	0.0778	0.0649	0.0640