

1 **Supplementary material**

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3 **Calculation of LOQs and BECs**

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$$LOQ = 10 \cdot \frac{s_b}{s} \quad \text{Equation S1}$$

6
$$BEC = \frac{I_b}{s} \quad \text{Equation S2}$$

7 where s_b was the standard deviation corresponding to 10 consecutive
8 measurements of the blank sample (xylene solution); s , the slope of the
9 calibration curve; and I_b , the average intensity corresponding to 10 consecutive
10 measurements of the blank sample.

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12 **Table S1.** Parameters of the calibration lines obtained with the hTISIS and the
13 conventional sample introduction system.

Sample introduction system	hTISIS	Conventional	Conventional
Calibration method	External calibration	External calibration	ISTD calibration
Average blank	1,476	821	3.3E-03
SD blank	37	27	1.1E-04
Slope	51.5	8.9	3.2E-05
Intercept	1,547	836	3.0E-03
R²	0.9999986	0.9997548	0.9993828

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