

## Supplementary Materials

**Table S1.** Statistics and definition of  $x_a$ -values for participants who reported quantitative results as “ricin and/or RCA120”.

Sample	Matrix	Measurand	c(Theoretical) *	c(Nominal) **	$\sigma$ (Rob)	$x_a$ ***	$\sigma_p$	Unit
S1	0.1% BSA/PBS	-	-	-	-	-	-	-
S2	0.1% BSA/PBS	Ricin and/or RCA120	500000	572851	62686	572851	146135	ng/mL
S3	0.1% BSA/PBS	Ricin and/or RCA120	500	504	110	424	108	ng/mL
S4	skimmed milk	Ricin and/or RCA120	500	473	96.3	629	160	ng/mL
S5	0.1% BSA/PBS	Ricin and/or RCA120	500	445	65.2	445	114	ng/mL
S6	0.1% BSA/PBS	Ricin and/or RCA120	500000	589508	78055	598600	152704	ng/mL
S7	0.1% BSA/PBS	Ricin and/or RCA120	0.5	0.414	0.112	0.538	0.137	ng/mL
S8	meat extract	Ricin and/or RCA120	500	484	111	626	160	ng/mL
S9	Organic fertilizer	Ricin and/or RCA120	-	348	-	318	81.2	$\mu$ g/g

\* The “theoretical concentration” was the known concentration of ricin or RCA120 that was spiked into the different matrices. Sample S9 was a naturally contaminated material, the true “theoretical values” were not known; \*\* Robust estimates of mean nominal concentrations as determined experimentally by the organizing laboratory by ELISA for ricin or RCA120, respectively; \*\*\* Consensus mean concentration based on all participants’ reported results as “ricin and/or RCA120” used as “assigned concentration”  $x_a$  are highlighted in green;  $\sigma$ (rob): robust estimate of the standard deviation of the nominal concentrations;  $\sigma_p$ : standard deviation for proficiency assessment.