QUASIMEME

Quality assurance of information for marine environmental monitoring

Certificate of Analysis

DSP shellfish toxins

REFERENCE MATERIAL

BT11 sample 29

WAGENINGEN
UNIVERSITY & RESEARCH

Certificate of Analysis BT11 29

General Information

In this report an overview is given of analytical data for this sample collected in our proficiency testing program. The consensus values are calculated using a robust statistical model. With this NDA model, the mean and standard deviation are calculated using all reported data when at least 4 results are left after removal of reported 'lower than' (<) and 0 (= zero) values. No outliers are removed.

This report is divided into two sections: Consensus Values and Indicative Values. The division is made on the reliability of the data. Consensus Values are based on at least 8 results and a maximum relative uncertainty of 6.25%. Indicative Values are based on a maximum relative uncertainty of 35% and a minimum of 4 and maximum of 7 results, or a relative uncertainty greater than 6.25% when there are at least 8 results.

For each determinand the following parameters are given: mean, standard deviation, coefficient of variation, number of results, median, MAD (Median of Absolute Deviation), the uncertainty of the mean (consensus or indicative) value and the relative uncertainty.

The results of each determinand is expressed on a wet weight basis.

Sample information

QUASIMEME reference materials cover a range of natural Shellfish toxins species from contaminated waters from the North Sea and/or Mediterranean.

This BT11 sample 29 of Mussel (Mytilus Edulis) from Marine Institute, Galway, Ireland is prepared for the QUASIMEME proficiency programs. The results on which the values in this report are based were taken from the periods given in the following table.

Year.Round	Program	Sample Round Id
2024.2	BT11	QST362BT
2021.1	BT11	QST301BT

Consensus Values BT11

Method: Toxins(SF) - BT11

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	Rel.Uncert. %
free-Okadaic-Acid	µg/kg	61.4	14.7	23.9	74	61.6	9.20	2.14	3.48
Free-DTX1	µg/kg	128	21.8	17.1	74	129	12.5	3.17	2.48
Free-DTX2	µg/kg	121	26.5	22.0	71	122	17.8	3.93	3.26
Total-free-OA+DTX1+DTX2	µg OA eq./kg	265	46.0	17.4	68	263	26.6	6.98	2.63
Total-Okadaic-Acid	µg/kg	328	69.8	21.3	74	320	47.5	10.1	3.09
Total-DTX1	µg/kg	155	41.3	26.6	74	154	28.1	6.00	3.87
Total-DTX2	µg/kg	359	85.6	23.8	73	359	51.4	12.5	3.48
Total-hy-OA+DTX1+DTX2	µg OA eq./kg	692	155	22.3	72	690	97.2	22.8	3.29
Total OA group + PTX group	µg OA eq./kg	712	130	18.3	40	701	87.2	25.8	3.62
YTX	mg/kg	0.058	0.019	32.5	49	0.060	0.011	0.003	5.81

Indicative Values BT11

Method: Toxins(SF) - BT11

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	Rel.Uncert. %
PTX-2	µg/kg	3.19	0.613	19.2	9	3.21	0.340	0.256	8.01
45-OH-YTX	mg/kg	0.027	0.011	41.0	27	0.027	0.007	0.003	9.87
Total-YTX	mg YTX eq./kg	0.078	0.027	35.1	38	0.080	0.016	0.006	7.12