QUASIMEME

Quality assurance of information for marine environmental monitoring

Certificate of Analysis

DSP shellfish toxins

REFERENCE MATERIAL

BT11 sample 24

WAGENINGEN
UNIVERSITY & RESEARCH

Certificate of Analysis BT11 24

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 24 of Blue mussel homogenate (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
2025.1	BT11	QST371BT
2023.1	BT11	QST335BT
2021.1	BT11	QST300BT
2018.2	BT11	QST256BT

Consensus Values BT11

Method: Toxins(SF) - BT11

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	Rel.Uncert. %
free-Okadaic-Acid	µg/kg	33.2	6.18	18.6	121	33.6	3.56	0.703	2.12
Free-DTX2	µg/kg	9.97	3.53	35.4	57	10.9	2.13	0.585	5.87
Total-free-OA+DTX1+DTX2	µg OA eq./kg	36.6	8.40	22.9	109	37.0	5.80	1.01	2.75
Total-Okadaic-Acid	µg/kg	65.3	12.2	18.6	134	66.6	7.00	1.31	2.01
Total-DTX2	µg/kg	11.8	3.81	32.1	60	12.6	2.30	0.614	5.18
Total-hy-OA+DTX1+DTX2	µg OA eq./kg	69.4	13.4	19.4	123	69.7	7.95	1.51	2.18
AZA-1	µg/kg	423	71.1	16.8	139	422	49.9	7.54	1.78
AZA-2	µg/kg	116	20.1	17.3	135	118	14.1	2.16	1.87
AZA-3	µg/kg	75.8	13.1	17.3	135	77.0	8.60	1.41	1.86
AZA-total	µg AZA eq./kg	735	112	15.2	132	735	78.0	12.1	1.65
Total OA group + PTX group	µg OA eq./kg	70.0	14.4	20.6	87	69.7	7.95	1.93	2.76

Indicative Values BT11

Method: Toxins(SF) - BT11

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	Rel.Uncert. %
Free-DTX1	µg/kg	1.45	1.38	95.3	8	3.10	1.22	0.609	42.1
Total-DTX1	µg/kg	2.08	1.81	87.1	13	3.80	1.48	0.628	30.2