



QUASIMEME

Quality assurance of information
for marine environmental monitoring

Certificate of Analysis



DSP shellfish toxins

REFERENCE MATERIAL

BT11 sample 10



Certificate of Analysis BT11 10

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 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 10 results while the relative uncertainty is smaller than 6.25%. Indicative Values are based on a relative uncertainty of maximum 35% with at least 4 and less than 10 results or a relative uncertainty higher than 6.25%.

For each determinand the following parameters are given: mean, standard deviation, coefficient of variation, number of results, median, MAD (Median of Absolute Deviation) and the uncertainty in the assigned value. The confidence limits (at 95 % probability) are calculated for these determinands.

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 10 of Mussel tissue (*Mytilus Edulis*) from Marine Institute, 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
2019.2	BT11	QST272BT
2018.2	BT11	QST254BT
2017.2	BT11	QST241BT
2017.1	BT11	QST228BT
2015.2	BT11	QST201BT



Consensus Values BT11

Method: Toxins(SF) - BT11

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	95 % confidence limits		
Free-DTX2	µg/kg	413	75.8	18.3	140	410	51.9	8.0	401	-	426
free-Okadaic-Acid	µg/kg	150	27.6	18.4	144	151	18.8	2.9	146	-	155
Total-free-OA+DTX1+DTX2	µg OA eq./kg	407	75.4	18.5	130	406	50.3	8.3	394	-	421
Total-DTX2	µg/kg	694	126.3	18.2	130	703	86.9	13.8	672	-	716
Total-Okadaic-Acid	µg/kg	464	73.1	15.7	129	472	50.8	8.0	451	-	477
Total-hy-OA+DTX1+DTX2	µg OA eq./kg	894	162.2	18.1	128	892	112.9	17.9	866	-	922
Total OA group + PTX group	µg OA eq./kg	887	156.6	17.7	107	883	110.3	18.9	857	-	917



Indicative Values BT11

Method: Toxins(SF) - BT11

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	95 % confidence limits	
AZA-1	µg/kg	0.971	0.6219	64.0	26	1.177	0.4530	0.1525	0.721	- 1.22
AZA-2	µg/kg	0.574	0.3245	56.5	24	0.735	0.2475	0.0828	0.438	- 0.711
AZA-3	µg/kg	3.34	2.242	67.0	42	4.37	1.645	0.433	2.65	- 4.04
AZA-total	µg AZA eq./kg	5.59	2.988	53.5	43	6.97	1.971	0.570	4.67	- 6.51
Free-DTX1	µg/kg	0.793	0.5821	73.4	9	1.000	0.4170	0.2426	0.354	- 1.23
PTX-2	µg/kg	2.28	1.198	52.6	21	3.02	0.778	0.327	1.73	- 2.82