



QUASIMEME

Quality assurance of information
for marine environmental monitoring

Certificate of Analysis



PSP shellfish toxins

REFERENCE MATERIAL

BT12 sample 19



Certificate of Analysis BT12 19

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 BT12 sample 19 of Blue 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
2022.2	BT12	QST329BT
2021.1	BT12	QST303BT
2020.1	BT12	QST285BT
2019.2	BT12	QST277BT



Consensus Values BT12

Method: Toxins(SF) - BT12

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	95 % confidence limits		
GTX-1	µmol/kg	0.215	0.0574	26.7	30	0.218	0.0380	0.0131	0.193	-	0.236
GTX-2	µmol/kg	5.77	0.664	11.5	47	5.63	0.470	0.121	5.57	-	5.96
GTX-3	µmol/kg	1.84	0.202	11.0	45	1.81	0.141	0.038	1.78	-	1.90
STX	µmol/kg	1.88	0.392	20.8	118	1.89	0.266	0.045	1.81	-	1.95
Total toxicity	µgSTXdiHCleq./kg	2220	350	15.8	108	2250	237	42	2154	-	2288
GTX-2,3	µmol/kg	6.57	1.552	23.6	73	6.61	1.008	0.227	6.21	-	6.93



Indicative Values BT12

Method: Toxins(SF) - BT12

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	95 % confidence limits
dc-GTX-2,3	µmol/kg	0.0654	0.0556	84.9	12	0.1622	0.0509	0.0201	0.0305 - 0.100
GTX-4	µmol/kg	0.0661	0.0353	53.3	22	0.0820	0.0252	0.0094	0.0505 - 0.0817
GTX-1,4	µmol/kg	0.316	0.1475	46.6	22	0.380	0.0869	0.0393	0.251 - 0.382