QUASIMEME

Quality assurance of information
for marine environmental monitoring

Certificate of Analysis

PSP shellfish toxins

REFERENCE MATERIAL

BT12 sample 4

Certificate of Analysis BT12 4

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 % probabilty) 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 4 of Oyster tissue (Crassostrea gigas) 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
2018.1	BT12	QST248BT
2016.1	BT12	QST212BT
2014.1	BT12	QST173BT

Consensus Values BT12

Method: Toxins(SF) - BT12

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	95 % confidence limits		
GTX-2	µmol/kg	2.21	0.294	13.3	29	2.24	0.208	0.068	2.10	-	2.32
GTX-3	µmol/kg	0.753	0.0622	8.3	29	0.756	0.0440	0.0144	0.729	-	0.777
STX	µmol/kg	1.83	0.225	12.3	80	1.82	0.160	0.031	1.78	-	1.88
Total toxicity	µgSTXdiHCleq./kg	1470	291	19.8	85	1490	195	39	1402	-	1528
GTX-2,3	µmol/kg	2.37	0.440	18.6	50	2.41	0.306	0.078	2.25	-	2.50

Indicative Values BT12

Method: Toxins(SF) - BT12

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	95 % confidence limits		
C1	µmol/kg	0.0467	0.0388	83.0	9	0.0559	0.0261	0.0162	0.0175	-	0.0760
C-1,2	µmol/kg	0.0592	0.0469	79.1	12	0.1130	0.0352	0.0169	0.0297	-	0.0887
dc-GTX2	µmol/kg	0.0229	0.0097	42.4	7	0.0230	0.0060	0.0046	0.0142	-	0.0316
dc-STX	µmol/kg	0.0828	0.0428	51.7	51	0.0900	0.0300	0.0075	0.0708	-	0.0949
GTX-1	µmol/kg	0.503	0.1385	27.5	27	0.523	0.0920	0.0333	0.448	-	0.557
GTX-4	µmol/kg	0.150	0.0420	28.1	27	0.150	0.0280	0.0101	0.133	-	0.166
GTX-5	µmol/kg	0.0146	0.0114	78.1	14	0.0175	0.0085	0.0038	0.0081	-	0.0211
NEO	µmol/kg	0.198	0.1097	55.3	43	0.235	0.0735	0.0209	0.165	-	0.232
GTX-1,4	µmol/kg	0.724	0.2360	32.6	36	0.762	0.1655	0.0492	0.644	-	0.804