



QUASIMEME

Quality assurance of information
for marine environmental monitoring

Certificate of Analysis



PSP shellfish toxins

REFERENCE MATERIAL

BT12 sample 18



Certificate of Analysis BT12 18

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 18 of Mediterranean Mussel (*Mytilus galloprovincialis*) from Marine Institute, Galay, 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
2022.1	BT12	QST320BT
2020.2	BT12	QST294BT
2019.1	BT12	QST268BT



Consensus Values BT12

Method: Toxins(SF) - BT12

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	95 % confidence limits		
dc-STX	µmol/kg	1.73	0.531	30.7	97	1.73	0.364	0.067	1.63	-	1.84
STX	µmol/kg	0.0874	0.0334	38.2	68	0.0989	0.0228	0.0051	0.0793	-	0.0955
Total toxicity	µgSTXdiHCleq./kg	727	251.0	34.5	99	733	176.8	31.5	677	-	777



Indicative Values BT12

Method: Toxins(SF) - BT12

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	95 % confidence limits
dc-NEO	µmol/kg	0.126	0.1284	102.1	14	0.284	0.1186	0.0429	0.0522 - 0.199
GTX-2	µmol/kg	0.0799	0.0379	47.5	23	0.0920	0.0280	0.0099	0.0635 - 0.0963
GTX-3	µmol/kg	0.0302	0.0131	43.4	20	0.0355	0.0100	0.0037	0.0241 - 0.0363
GTX-5	µmol/kg	0.0650	0.0260	40.1	35	0.0650	0.0170	0.0055	0.0560 - 0.0739
GTX-2,3	µmol/kg	0.0778	0.0286	36.8	31	0.0845	0.0185	0.0064	0.0673 - 0.0883