



QUASIMEME

Quality assurance of information
for marine environmental monitoring

Certificate of Analysis



PSP shellfish toxins

REFERENCE MATERIAL

BT12 sample 27



Certificate of Analysis BT12 27

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 27 of Blue mussels (*Mytilus Edulis*) from CEFAS, Weymouth 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
2023.1	BT12	QST340BT



Consensus Values BT12

Method: Toxins(SF) - BT12

Element

STX

Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	95 % confidence limits
µmol/kg	0.691	0.1382	20.0	34	0.711	0.0813	0.0296	0.643 - 0.740



Indicative Values BT12

Method: Toxins(SF) - BT12

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	95 % confidence limits	
GTX-1	µmol/kg	0.109	0.0357	32.8	7	0.118	0.0177	0.0169	0.0770	- 0.141
GTX-2	µmol/kg	0.904	0.1746	19.3	12	0.915	0.1260	0.0630	0.794	- 1.01
GTX-3	µmol/kg	0.295	0.0914	31.0	11	0.304	0.0472	0.0345	0.235	- 0.356
GTX-4	µmol/kg	-	-	-	4	0.0617	0.0	-	-	- -
GTX-5	µmol/kg	1.16	0.335	28.9	32	1.15	0.177	0.074	1.04	- 1.28
GTX-6	µmol/kg	-	-	-	5	0.192	0.1	-	-	- -
C1	µmol/kg	1.23	0.576	46.9	8	1.17	0.263	0.255	0.759	- 1.70
dc-STX	µmol/kg	0.656	0.2277	34.7	33	0.706	0.1560	0.0495	0.576	- 0.737
dc-GTX2	µmol/kg	0.988	0.3049	30.9	11	1.010	0.2432	0.1149	0.785	- 1.19
dc-GTX3	µmol/kg	0.313	0.0993	31.7	10	0.316	0.0375	0.0392	0.243	- 0.383
Total toxicity	µgSTXdiHCleq./kg	1058	386.2	36.5	36	1076	240.8	80.5	927	- 1188
GTX-2,3	µmol/kg	0.936	0.3361	35.9	24	0.906	0.1890	0.0858	0.795	- 1.08
GTX-1,4	µmol/kg	1.41	1.089	77.1	14	1.74	0.518	0.364	0.788	- 2.04
C-1,2	µmol/kg	1.14	0.385	33.7	24	1.09	0.193	0.098	0.982	- 1.31
dc-GTX-2,3	µmol/kg	0.804	0.4004	49.8	22	0.791	0.1900	0.1067	0.627	- 0.981