



# QUASIMEME

Quality assurance of information  
for marine environmental monitoring

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## Certificate of Analysis



DSP shellfish toxins

REFERENCE MATERIAL

BT11 sample 35

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## Certificate of Analysis BT11 35

### 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, the 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 8 results and a maximum relative uncertainty of 6.25%. Indicative Values are based on a maximum relative uncertainty of 35% and a minimum of 4 and maximum of 7 results, or a relative uncertainty greater than 6.25% when there are at least 8 results.

For each determinand the following parameters are given: mean, standard deviation, coefficient of variation, number of results, median, MAD (Median of Absolute Deviation), the uncertainty of the mean (consensus or indicative) value and the relative uncertainty.

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 35 of Queen Scallops from CEFAS, United Kingdom 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 |
|------------|---------|-----------------|
| 2024.1     | BT11    | QST355BT        |



**Consensus Values    BT11**

**Method: Toxins(SF) - BT11**  
**Element**  
YTX

| <b>Unit</b> | <b>Mean</b> | <b>Std.Dev.</b> | <b>CV %</b> | <b>N</b> | <b>Median</b> | <b>MAD</b> | <b>Uncertainty</b> | <b>Rel.Uncert. %</b> |
|-------------|-------------|-----------------|-------------|----------|---------------|------------|--------------------|----------------------|
| mg/kg       | 1.61        | 0.423           | 26.2        | 35       | 1.63          | 0.335      | 0.089              | 5.53                 |



## Indicative Values BT11

### Method: Toxins(SF) - BT11

| Element                    | Unit          | Mean  | Std.Dev. | CV % | N  | Median | MAD   | Uncertainty | Rel.Uncert. % |
|----------------------------|---------------|-------|----------|------|----|--------|-------|-------------|---------------|
| free-Okadaic-Acid          | µg/kg         | 14.0  | 4.24     | 30.2 | 17 | 13.6   | 2.50  | 1.28        | 9.16          |
| Free-DTX1                  | µg/kg         | 78.6  | 35.3     | 44.9 | 30 | 78.0   | 22.3  | 8.06        | 10.3          |
| Total-free-OA+DTX1+DTX2    | µg OA eq./kg  | 89.4  | 31.9     | 35.7 | 26 | 91.9   | 20.4  | 7.83        | 8.75          |
| Total-Okadaic-Acid         | µg/kg         | 82.8  | 26.1     | 31.5 | 32 | 82.2   | 18.9  | 5.76        | 6.96          |
| Total-DTX1                 | µg/kg         | 588   | 302      | 51.4 | 32 | 636    | 238   | 66.8        | 11.4          |
| Total-hy-OA+DTX1+DTX2      | µg OA eq./kg  | 682   | 328      | 48.1 | 33 | 721    | 226   | 71.3        | 10.5          |
| PTX-2                      | µg/kg         | 14.1  | 5.22     | 37.1 | 14 | 14.6   | 2.70  | 1.74        | 12.4          |
| Total OA group + PTX group | µg OA eq./kg  | 619   | 332      | 53.7 | 18 | 616    | 318   | 97.8        | 15.8          |
| homo-YTX                   | mg/kg         | 0.042 | 0.014    | 34.3 | 14 | 0.043  | 0.007 | 0.005       | 11.4          |
| 45-OH-YTX                  | mg/kg         | 0.122 | 0.062    | 51.0 | 23 | 0.120  | 0.034 | 0.016       | 13.3          |
| Total-YTX                  | mg YTX eq./kg | 1.72  | 0.523    | 30.4 | 31 | 1.74   | 0.430 | 0.117       | 6.82          |