



EUROPROXIMA MARINE BIOTOXINS

Competitive ELISA kits for the quantitative
detection of marine biotoxins



EuroProxima

EuroProxima is
a brand from





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Marine biotoxins, a world-wide risk

Marine biotoxins, or phytotoxins, are naturally occurring compounds produced by algae and phytoplankton. Fish and filter feeders such as clams, mussels can consume large quantities of these algae. High concentrations of toxins then accumulate in these organisms causing illness amongst people who eat them. Shellfish poisoning is a very potent toxicity and extremely dangerous. For some toxins, doses at ppb level can be lethal.

Competitive ELISA

R-Biopharm Netherlands has developed 4 competitive ELISA's for the detection of respectively the toxins SAXI, OKA, DOMO, TTX in shellfish and fish. The ELISA's are easy to perform and fast in comparison with other techniques like HPLC. Choosing for an ELISA for marine biotoxins is responding to the expected increase of samples with a cost-effective screening method.

Ordering information

For ordering the marine biotoxin ELISA tests, please use the following catalogue codes:

| | |
|--------------------------------|-----------------|
| EuroProxima Saxitoxin ELISA | 5191SAXI |
| EuroProxima Okadaic acid ELISA | 5191OKA |

| | |
|--------------------------------|-----------------|
| EuroProxima Domoic acid ELISA | 5191DOMO |
| EuroProxima Tetrodotoxin ELISA | 5191TTX |

Saxitoxin (SAXI)

Saxitoxin is one of the most potent natural toxins known. It acts as a selective sodium channel blocker and is produced by certain species of marine dinoflagellates and cyanobacteria.

Okadaic acid (OKA)

Okadaic acid, a polyether toxin, is a potent tumor promoter. It was named from the marine sponge *Halichondria okadai*, from which it was first isolated. OKA and its analogues, the dinophysistoxins (DTX1, DTX2, and DTX3), together form the group of OKA-toxins.

Domoic acid (DOMO)

Domoic acid is an amino acid containing the structure of glutamic acid and resembling kainic acid. It was first pinpointed as a problem in marine mammals in 1998, when many California sea lions died along the Central California coast. DOMO is produced by the phytoplankton *Pseudo-nitzschia*.

Tetrodotoxin (TTX)

In Japan the consumption of the delicacy Fugu, or puffer fish, leads to 30-50 intoxications of humans per year, resulting in severe illness and sometimes death. The cause for this is TTX, one of the most powerful neurotoxins known. TTX and its analogues belong to a group of neurotoxins that are produced by various marine bacteria.

Key features

- An increase of the demand for testing for marine biotoxins is to be expected world-wide
- The R-Biopharm EuroProxima ELISA's offer a cost-effective and rapid method for marine biotoxins screening
- A specific ELISA for TTX is developed. A scientific comparison with LC-MS/MS is published. The article is available upon request.

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