



# SAXITOXIN ELISA (5191SAXI)

## General

High concentrations of shellfish toxins can accumulate in filter feeders such as clams, mussels, and oysters causing illness amongst people who eat them. There are four syndromes called shellfish poisoning, i.e paralytic shellfish poisoning (PSP), neurotoxic shellfish poisoning (NSP), diarrhetic shellfish poisoning (DSP) and amnesic shellfish poisoning (ASP). PSP is caused by a wide number of derivatives of saxitoxin (STX).

In the European Union, Regulation (EC) no 853/2004 stipulates that live bivalve mollusks must not contain PSP toxins (saxitoxin and analogues) in total quantity (measured in the whole body or any part edible separately) that exceeds a limit of 800 µg per kilogram.

The saxitoxin ELISA is a competitive enzyme immunoassay for screening on the presence of saxitoxin residues in various matrices. Samples are measured in duplicate which means that in total 40 samples can be analysed.

## Kit characteristics

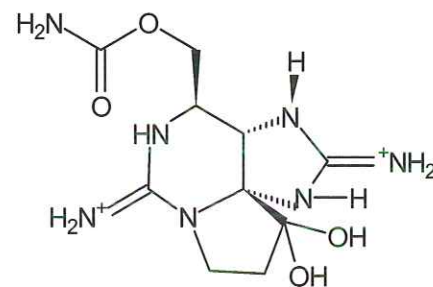
- **Microtiter plate:**  
12 x 8 break 4 wells
- **Antibody cross-reactivity:**

Saxitoxin	100%
Gonyautoxin GTX 5	26.2%
Decarbamoyl saxitoxin	19.2%
Gonyautoxins GTX 2/3	5.6%
Neosaxitoxin	1.4%
Decarbamoyl neosaxitoxin	0.5%
Decarbamoyl GTX 2/3	0.2%
C1 and C2	0.2%
B1 and B2	<0.1%
Gonyautoxins GTX ¼	<0.1%
Dinophysistoxin DTX-1	<0.1%
Dinophysistoxin DTX-2	<0.1%
Domoic acid	<0.1%
Okadaic acid	<0.1%
- **Conjugate:**  
STX-HRP stabilized
- **Standard range (ready-to-use):**  
0, 0.0125, 0.025, 0.05, 0.1, 0.2, and 0.3 ng/ml

## Assay characteristics

Matrices	LOD (ppb)*
Mussel	10
Oyster	5

\* LOD (Limit of Detection); Validation according to SANCO/1085/2000.



Chemical structure of saxitoxin (STX)

## Assay procedure

Microtiter wells are precoated with sheep antibodies to rabbit IgG. Rabbit anti-STX antibodies, STX-HRP as well as STX standard solution or samples are added to the precoated wells and incubated for 30 minutes at RT.

After a washing procedure, ready-to-use substrate/chromogen is added and incubated for 15 minutes at RT. The reaction is stopped and a read-out is performed in a spectrophotometer at 450 nm.

Saxitoxin standard curve

