



DOMOIC ACID ELISA (5191DOMO)

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). ASP is caused by domoic acid (DA), an excitatory amino acid containing the structure of glutamic acid and resembling kainic acid.

In the European Union, Regulation (EC) no 853/2004 stipulates that live bivalve mollusks must not contain DA in total quantity (measured in the whole body or any part edible separately) that exceeds a limit of 20 mg DA per kilogram.

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

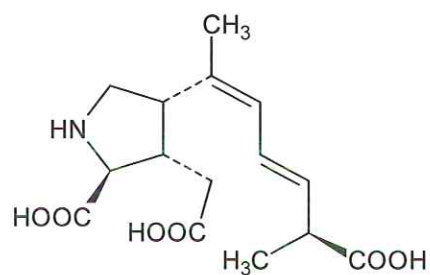
Kit characteristics

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

Domoic acid	100%
Gonyautoxin GTX 5	<0.1%
Decarbamoyl saxitoxin	<0.1%
Gonyautoxins GTX 2/3	<0.1%
Neosaxitoxin	<0.1%
Decarbamoyl neosaxitoxin	<0.1%
Decarbamoyl GTX 2/3	<0.1%
C1 and C2	<0.1%
B1 and B2	<0.1%
Gonyautoxins GTX 1/4	<0.1%
Dinophysistoxin DTX-1	<0.1%
Dinophysistoxin DTX-2	<0.1%
Saxitoxin	<0.1%
Okadaic acid	<0.1%
- **Conjugate:**
DA-HRP stabilized
- **Standard range (ready-to-use):**
0, 0.2, 0.5, 1.0, 2.0, 5.0, and 10.0 ng/ml

Assay characteristics

Matrices	LOD (ppb)*
Scallop	23
Mussel	21
Oyster	23



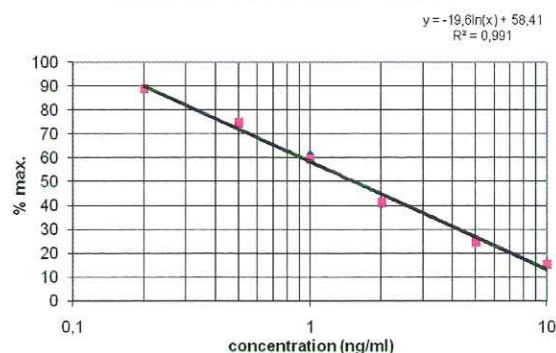
Chemical structure of domoic acid (DA)

Assay procedure

Microtiter wells are precoated with sheep antibodies to rabbit IgG. Rabbit anti-DA antibodies, DA-HRP as well as DA 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.

Domoic Acid standard curve



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