Marine toxins are natural poisons possessed by fish and shellfish and cause food poisoning. Marine toxins are not only found in fish and shellfish, but also in microalgae or marine algae such as marine microorganisms and plankton, which are bio-concentrated by the food chain and cause poisoning in humans who eat them. Furthermore, global climatic changes have been accompanied by changes in the distribution of marine poisons, and the areas where food poisoning occurs are also changing. Therefore research on various marine toxins is in progress.

We provide a variety of reagents and kits related to marine toxins.

### For Ciguatoxin Analysis

**Ciguatoxin CTX 1B, CTX 3C**

Ciguatera food poisoning is the world's largest marine poisoning with over 50,000 people poisoning per year. It is a very strong neurotoxin, and the causative agent is ciguatoxins (CTX), which are produced by toxic dinoflagellates. There are numerous analogues of CTX, and we provide the CTX 3C and CTX 1B.

**Maitotoxin**

Maitotoxin (MTX) is produced by dinoflagellate (*Gambierdiscus toxicus*). And it is named mitotoxin after the Tahitian name of Striated surgeonfish "maito", which is a cause of ciguatera poisoning. MTX is the largest natural organic compound, which known structural formula. Since MTX exhibits a specific intracellular uptake of extracellular Ca^{2+}, it has attracted attention for the mechanism of signal transduction mediated by Ca^{2+}.

**CTX ELISA 1B**

The world's first ELISA kit that detects CTX1B and 54-deoxyCTX1B in a wide concentration range (0.2-0.0005 ppb).

- **Easy**
  - Can quantify easily by using sandwich ELISA.
- **Rapidly**
  - Can measure within two hours.
- **Specificity**
  - Be specific for CTX1B and 54-deoxyCTX1B, and no cross-reactivity with other CTXs.
- **High sensitivity**
  - Can detect 5 to 200 pg / mL (ppt) by colorimetric method.

### Product List

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Product Name</th>
<th>Grade</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>038-25801</td>
<td>CiguatoxinCTX 1B</td>
<td>for Biochemistry</td>
<td>100 ng</td>
</tr>
<tr>
<td>030-21581</td>
<td>CiguatoxinCTX 3C</td>
<td>for Biochemistry</td>
<td>100 ng</td>
</tr>
<tr>
<td>131-19011</td>
<td>Maitotoxin</td>
<td>for Biochemistry</td>
<td>10 μg</td>
</tr>
<tr>
<td>382-14341</td>
<td>CTX-ELISA 1B</td>
<td>Cell Science Inc.</td>
<td>1 kit</td>
</tr>
</tbody>
</table>
## Related Product List

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Product Name</th>
<th>Grade</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>165-26141</td>
<td>Palytoxin</td>
<td>F°</td>
<td>100 μg</td>
</tr>
<tr>
<td>206-11071</td>
<td>Tetrodotoxin</td>
<td>F°</td>
<td>1 mg</td>
</tr>
</tbody>
</table>

**Fish Poison**

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Product Name</th>
<th>Grade</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>036-20341</td>
<td>Cylindrospermopsin</td>
<td>F°</td>
<td>250 μg</td>
</tr>
<tr>
<td>136-12241</td>
<td>Microcystin LR</td>
<td>F°</td>
<td>250 μg</td>
</tr>
<tr>
<td>133-12251</td>
<td>Microcystin RR</td>
<td>F°</td>
<td>250 μg</td>
</tr>
<tr>
<td>138-12843</td>
<td>Microcystin YR</td>
<td>F°</td>
<td>50 μg</td>
</tr>
<tr>
<td>134-17041</td>
<td>Microcystin LR-15N10</td>
<td>F°</td>
<td>10 μg</td>
</tr>
<tr>
<td>137-17031</td>
<td>Microcystin RR-15N13</td>
<td>F°</td>
<td>10 μg</td>
</tr>
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</table>

**Cyanotoxin**

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Product Name</th>
<th>Grade</th>
<th>Volume</th>
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</thead>
<tbody>
<tr>
<td>042-33671</td>
<td>Dinophysistoxin-1</td>
<td>F°</td>
<td>100 μg</td>
</tr>
<tr>
<td>156-03551</td>
<td>OA・DTX1 Mixture Standard Solution</td>
<td>F°</td>
<td>2 mL</td>
</tr>
<tr>
<td>152-03271</td>
<td>Okadaic Acid</td>
<td>F°</td>
<td>25 μg</td>
</tr>
<tr>
<td>158-03273</td>
<td>Okadaic Acid Methyl Ester</td>
<td>F°</td>
<td>100 μg</td>
</tr>
<tr>
<td>151-03481</td>
<td>Okadaic Acid Sodium Salt</td>
<td>F°</td>
<td>100 μg</td>
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</table>

**Shellfish Poison**

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Product Name</th>
<th>Grade</th>
<th>Volume</th>
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</thead>
<tbody>
<tr>
<td>032-14451</td>
<td>Calyculin A</td>
<td>F°</td>
<td>10 μg</td>
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<tr>
<td>089-10441</td>
<td>Halichlorine</td>
<td>F°</td>
<td>100 μg</td>
</tr>
<tr>
<td>132-12081</td>
<td>Mycalolide B</td>
<td>F°</td>
<td>100 μg</td>
</tr>
<tr>
<td>193-11831</td>
<td>Stellettamide A Trifluoroacetate</td>
<td>F°</td>
<td>100 μg</td>
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</tbody>
</table>

**Sponge Poison**

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Product Name</th>
<th>Grade</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>155-03381</td>
<td>Okadaic Acid Sodium Salt</td>
<td>F°</td>
<td>100 μg</td>
</tr>
</tbody>
</table>

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