Tetrodotoxin, TTX (with citrate)

Cat #: BGT-CHM-431

Size: 1mg

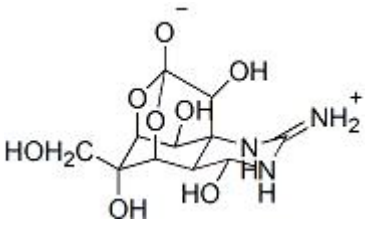
Storage: Store at 4°C or -20°C.

Product Description

Tetrodotoxin (TTX) is potent neurotoxin that reversibly binds and blocks sodium channels to disrupt the action potential and inhibit the firing of neurons. It is a widely used tool to study the mechanism of action of neurons, skeletal muscle cells, and cardiac muscle cells.

Molecular Information:

Molecular formula: C11H17N3O8
Mwt: 319.28
Cas No: 4368-28-9



Properties:

Color & Form： White powder Tetrodotoxin with citrate may appear as a thin, glassy material at the bottom or on the wall of the glass vial. This is normal. The material is packaged by lyophilization and the final form of the material may depend on the speed of lyophilization. With high speed lyophilization the material may appear fluffy. At low speed lyophilization the material may look thin, glassy and coated on the wall of the vial. This latter form is easier and safer for handling than the powdery fluffy form.

Purity： > 98% by Elemental Analysis

Solubility： 00060 - soluble in acidic buffer (pH 4.8); 00061 - soluble in water; Avoid alkaline or strongly acidic solution.

Storage and Handling:

Stable for at least one year at 4°C after receipt. Stable for at least three years at –20°C after receipt.

Application:

Tetrodotoxin (TTX) interferes with nerve transmission by selectively and reversibly blocking the voltage-gated, excitable sodium channels. It has become a useful tool in neurobiology to study excitable cell membranes.

Ref.: 1) Lysko, P.G. et al. Stroke 25, 2476(1994); 2) Hu, S.L. and Kao, C.Y. Toxicon 23, 723(1985); 3) Nakamura, M. and Yasumoto, T. Toxicon 23, 271(1985).

Toxicity:

LD50: 334 μg/kg, oral, mouse; LD50: 7.3 μg/kg, intravenous, mouse.