

Tetrodotoxin Datasheet

5th Edition (Revised in January, 2017)

[Product Information]

Name: Tetrodotoxin

Catalog No.: CFN99936

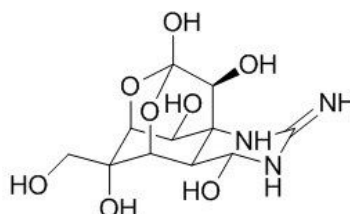
Cas No.: 4368-28-9

Purity: >=99%

M.F: C₁₁H₁₇N₃O₈

M.W: 319.27

Physical Description: Powder



Synonyms: (1R,5S,6R,7S,9S,11S,12S,13S,14S)-3-amino-5,9,12,13,14-pentahydroxy-14-(hydroxymethyl)-8,10-dioxo-2-aza-4-azoniatetracyclo[7.3.1.1~7,11~.0~1,6~]tetradec-3-ene.

[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Synthetic precursor compounds;
4. Intermediates & Fine Chemicals;
5. Others.

[Source]

From *Tetraodontidae*.

[Biological Activity or Inhibitors]

Tetrodotoxin, a poison from the puffer fish, at very low concentrations, blocks the action potential production through its selective inhibition of the sodium-carrying mechanism while keeping the potassium-carrying mechanism intact.^[1]

Modulation of tetrodotoxin-resistant voltage-gated Na⁺ current (TTX-R INa) is a mechanism for sensitization of mammalian nociceptors.^[2]

[Solvent]

Pyridine, Methanol, Ethanol, etc.

[HPLC Method]^[3]

Mobile phase: Acetonitrile-0.3 % Formic acid and 10 mmol of ammonium formate=83:17;

Flow rate: 1.0 ml/min;

Column temperature: 30 °C;

The wave length of determination: 196 nm.

[Storage]

2-8°C, Protected from air and light, refrigerate or freeze.

[References]

[1] Narahashi T, Moore J W, Scott W R. *J. Gen. Physiol.* 1964, 47(5):965-74.

[2] Tabarean I V, Narahashi T. *J. Pharmacol. Exp. Ther.*, 1998, 284(3):958-65.

[3] Zhou F, Zhao J, Li W. *Traditional Chinese Drug Research & Clinical Pharmacology*, 2011, 22(4):455-8.

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