

Product Name: Tetrodotoxin citrate

Catalog No.: 1069

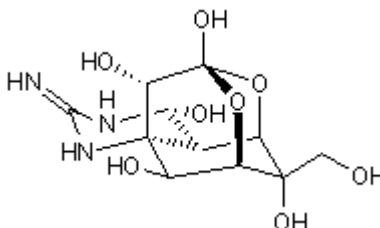
Batch No.: 45

CAS Number: 18660-81-6

IUPAC Name: Octahydro-12-(hydroxymethyl)-2-imino-5,9:7,10a-dimethano-10aH-[1,3]dioxocino[6,5-d]pyrimidine-4,7,10,11,12-pentol citrate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{11}H_{17}N_3O_8$
Batch Molecular Weight: 319.27
Physical Appearance: White lyophilised solid
Solubility: water to 100 mM
Storage: Desiccate at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.6% purity

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Highly selective, reversible sodium channel blocker; citrate salt of tetrodotoxin.

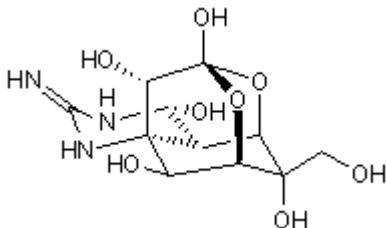
Physical and Chemical Properties:

Batch Molecular Formula: C₁₁H₁₇N₃O₈

Batch Molecular Weight: 319.27

Physical Appearance: White lyophilised solid

Batch Molecular Structure:



Storage: Desiccate at -20°C

Solubility & Usage Info:

water to 100 mM

The vial contains 1mg of tetrodotoxin and 5mg of citrate buffer, pH 4.8.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

Other Information:

This is a dual-use item with associated conditions of supply; the relevant licence/documentation from the appropriate governing body will be required.

Note on Biotubes:

Toxins are supplied in protective biotubes. These biotubes have a screw top lid, which is manually tightened and can be easily unscrewed. If the lid is particularly tight, a coin placed in the top slot may be used to unscrew it.

References:

Merck Index **12** 9382.

Kao (1972) Pharmacology of tetrodotoxin and saxitoxin. Fed.Proc. **31** 1117. PMID: 5032475.

Kao (1986) Structure-activity relations of tetrodotoxin, saxitoxin, and analogues. Ann.N.Y.Acad.Sci. **479** 52. PMID: 2434008.

Gleitz et al (1996) The protective action of tetrodotoxin and (±)-kavain on anaerobic glycolysis, ATP content and intracellular Na⁺ and Ca²⁺ of anoxic brain vesicles. Neuropharmacology **35** 1743. PMID: 9076753.

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