PRODUCT INFORMATION

4,9-Anhydrotetrodotoxin
Item No. 19084

CAS Registry No.: 13072-89-4
Formal Name: (4S,5aS,6S,8R,9S,10S,11aR,12R)-2-amino-1,4,5a,6,8,9,10,11-octahydro-9-(hydroxymethyl)-6,10-epoxy-4,8,11a-metheno-11aH-oxocino[4,3-f][1,3,5]oxadiazepine-6,9,11-triol
Synonym: 4,9-anhydro-TTX
MF: C₁₁H₁₅N₃O₇
FW: 301.3
Purity: ≥ 98%
Supplied as: A solid or film
Storage: -20°C
Stability: ≥ 2 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

4,9-Anhydrotetrodotoxin (4,9-anhydro-TTX) is supplied as a solid or film. A stock solution may be made by dissolving the 4,9-anhydro-TTX in the solvent of choice. 4,9-anhydro-TTX is soluble in organic solvents such as ethanol, which should be purged with an inert gas. It is also soluble in water. The solubility of 4,9-anhydro-TTX in ethanol and water is approximately 5 and 1 mg/ml, respectively. We do not recommend storing the aqueous solution for more than one day.

Description

4,9-anhydro-TTX is a derivative of TTX that selectively blocks inward sodium current through Naᵥ1.6 voltage-activated sodium channels (IC₅₀ = 7.8 nM in Xenopus oocytes). It demonstrates IC₅₀ values of 1.3, 0.34, 0.99, 78.5, 1.3, and >30 μM for Naᵥ1.2, Naᵥ1.3, Naᵥ1.4, Naᵥ1.5, Naᵥ1.7, and Naᵥ1.8, respectively.

References