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Product Information

Saxitoxin diacetate salt from *Protogonyaulax* species

Product Number **S1417**
Storage Temperature $-20\text{ }^{\circ}\text{C}$

Synonym: STX

Product Description

Molecular Formula: $\text{C}_{10}\text{H}_{17}\text{N}_7\text{O}_4 \cdot 2(\text{C}_2\text{H}_4\text{O}_2)$
Formula Weight: 419.39

Saxitoxin is a neurotoxin produced by dinoflagellates in "red tides" and is a selective sodium channel blocker.

Saxitoxin has been reported to have several biological applications including:

1. Study of sodium and calcium ion currents in smooth and cardiac muscles.^{1,2}
2. Study of the structure of sodium channels.^{3,4,5}
3. Investigation of the effect of chemicals on neuromuscular transmission⁶ and sodium channels⁷ in relation to medical and physiological disorders.^{8,9}
4. Development of antibody-based vaccines and drugs to counteract paralytic shellfish poison (PSP) toxins.^{10,11}
5. Development of medicine¹² and investigation of drug action.¹³

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store the product at $-20\text{ }^{\circ}\text{C}$ under an inert atmosphere. Saxitoxin is stable in acidic solutions (pH 2.5 - 3.0) and labile in alkaline solutions. Solutions of saxitoxin in acidic, aqueous solvent or in aqueous-methanol stored at $-20\text{ }^{\circ}\text{C}$ are stable for several years.

References

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