

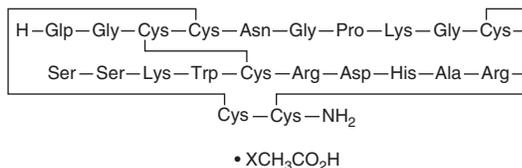
PRODUCT INFORMATION



μ-Conotoxin (acetate)

Item No. 42455

Formal Name: 5-oxo-L-prolylglycyl-L-cysteinyl-L-cysteinyl-L-asparaginylglycyl-L-prolyl-L-lysylglycyl-L-cysteinyl-L-seryl-L-seryl-L-lysyl-L-tryptophyl-L-cysteinyl-L-arginyl-L-α-aspartyl-L-histidyl-L-alanyl-L-arginyl-L-cysteinyl-L-cysteinamide, cyclic (3→15),(4→21),(10→22)-tris(disulfide), acetate



Synonym: μ-CnIIIC
MF: C₉₂H₁₃₉N₃₅O₂₈S₆ • XC₂H₄O₂
FW: 2,375.7
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years

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

Laboratory Procedures

μ-Conotoxin (acetate) is supplied as a solid. Aqueous solutions of μ-conotoxin (acetate) can be prepared by directly dissolving the solid in aqueous buffers. μ-Conotoxin (acetate) is soluble (≥10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

μ-Conotoxin is a conotoxin that has been found in sined cone (*C. consors*) and is an inhibitor of voltage-gated sodium channel 1.4 (Na_v1.4).¹ It inhibits Na_v1.4 in HEK293 cells (IC₅₀ = 2.3 nM for the rat channel). μ-Conotoxin also inhibits rat Na_v1.2 channels in HEK293 cells when used at a concentration of 500 nM and is an antagonist of α7 nicotinic acetylcholine receptors (nAChRs) and α4β2 and α3β2 subunit-containing nAChRs in *Xenopus* oocytes expressing the human receptors (IC₅₀s = 22, 2.9, and 0.45 μM, respectively). It reduces global nerve action potential in isolated mouse sciatic nerves in a concentration-dependent manner. μ-Conotoxin inhibits contraction in isolated mouse hemidiaphragm muscles (IC₅₀ = 46 nM).

Reference

1. Favreau, P., Benoit, E., Hocking, H.G., *et al.* A novel μ-conopeptide, CnIIIC, exerts potent and preferential inhibition of Na_v1.2/1.4 channels and blocks neuronal nicotinic acetylcholine receptors. *Br. J. Pharmacol.* **166(5)**, 1654-1668 (2012).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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