

PRODUCT INFORMATION



α -Conotoxin PnIA (trifluoroacetate salt)

Item No. 36197

Formal Name: glycyl-L-cysteinyl-L-cysteinyl-L-seryl-L-leucyl-L-prolyl-L-prolyl-L-cysteinyl-L-alanyl-L-alanyl-L-asparaginyl-L-asparaginyl-L-prolyl-L- α -aspartyl-L-tyrosyl-L-cysteinamide, cyclic (2 $\rightarrow$ 8), (3 $\rightarrow$ 16)-bis(disulfide), trifluoroacetate salt

Synonyms: α -CtxPnIA, α PnIA

Peptide Sequence: GCCSLPPCAANNPDYC-NH₂

MF: C₆₅H₉₅N₁₉O₂₂S₄ • XCF₃COOH

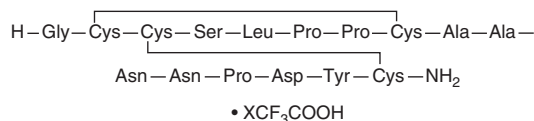
FW: 1,622.8

Purity: $\geq$ 95%

Supplied as: A solid

Storage: -20°C

Stability: $\geq$ 4 years



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

Laboratory Procedures

α -Conotoxin PnIA (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the α -conotoxin PnIA (trifluoroacetate salt) in water. We do not recommend storing the aqueous solution for more than one day.

Description

α -Conotoxin PnIA is a peptide originally isolated from the venom of the marine mollusk *C. pennaceus* and an antagonist of α 3 β 2 subunit-containing nicotinic acetylcholine receptors (nAChRs) and α 7 nAChRs (IC₅₀s = 7.9 and 62.7 nM, respectively).^{1,2} α -Conotoxin PnIA (0.1 nmol/kg) in combination with baicalein (Item No. 70610) inhibits tumor growth and increases survival in an Ehrlich murine spontaneous adenocarcinoma model.³

References

1. Fainzilber, M., Hasson, A., Oren, R., *et al.* New mollusc-specific α -conotoxins block *Aplysia* neuronal acetylcholine receptors. *Biochemistry* **33**(32), 9523-9529 (1994).
2. Hopping, G., A., W.C.-I., Hogg, R.C., *et al.* Hydrophobic residues at position 10 of α -conotoxin PnIA influence subtype selectivity between α 7 and α 3 β 2 neuronal nicotinic acetylcholine receptors. *Biochem. Pharmacol.* **91**(4), 534-542 (2014).
3. Osipov, A.V., Terpinskaya, T.I., Yanchanka, T., *et al.* α -Conotoxins enhance both the in vivo suppression of Ehrlich carcinoma growth and in vitro reduction in cell viability elicited by cyclooxygenase and lipoxygenase inhibitors. *Mar. Drugs* **18**(4), 193 (2020).

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.

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