

PRODUCT INFORMATION



Nociceptin (trifluoroacetate salt)

Item No. 15070

Formal Name:	L-phenylalanyl-glycyl-glycyl-L-phenylalanyl-L-threonylglycyl-L-alanyl-L-arginyl-L-lysyl-L-seryl-L-alanyl-L-arginyl-L-lysyl-L-leucyl-L-alanyl-L-asparaginyll-L-glutamine, trifluoroacetate salt	Phe—Gly—Gly—Phe—Thr—Gly—Ala—Arg—Lys—Ser— Ala—Arg—Lys—Leu—Ala—Asn—Gln • XCF ₃ COOH
Synonym:	Orphanin FQ	
MF:	C ₇₉ H ₁₂₉ N ₂₇ O ₂₂ • XCF ₃ COOH	
FW:	1,809.0	
Purity:	≥95%	
Supplied as:	A crystalline 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

Nociceptin (trifluoroacetate salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the nociceptin (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. Nociceptin (trifluoroacetate salt) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of nociceptin (trifluoroacetate salt) in these solvents is approximately 30 and 20 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of nociceptin (trifluoroacetate salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of nociceptin (trifluoroacetate salt) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Nociceptin is a 17 amino acid neuropeptide involved in a variety of biological systems including pain, memory, stress responses, anxiety, locomotion, and feeding behavior.¹ It is an endogenous ligand of the NOP1 (ORL1) receptor (K_i = 88 μM in CHO cells) and, though an opioid-related peptide, does not interact directly at the classic μ-, κ-, or δ-opioid receptors.¹

References

1. Mogil, J.S. and Pasternak, G.W. The molecular and behavioral pharmacology of the orphanin FQ/nociceptin peptide and receptor family. *Pharmacol. Rev.* **53**(3), 381-415 (2001).

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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