

PRODUCT INFORMATION



Nociceptin (1-11) (human, mouse, rat, porcine, bovine)

Item No. 43006

CAS Registry No.: 178249-41-7

Formal Name: L-phenylalanylglycylglycyl-L-phenylalanyl-L-threonylglycyl-L-alanyl-L-arginyl-L-lysyl-L-seryl-L-alanine

Synonyms: OFQ/N (1-11), Orphanin FQ (1-11)

Peptide Sequence: FGGFTGARKSA-OH

MF: $C_{49}H_{75}N_{15}O_{14}$

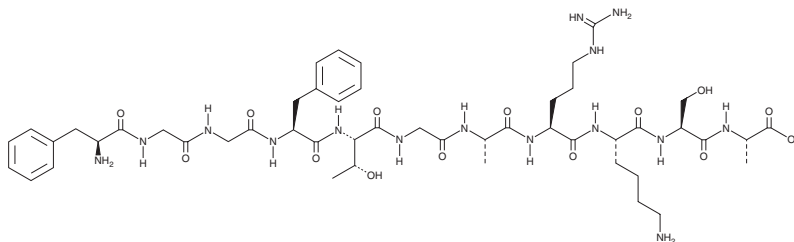
FW: 1,098.2

Purity: $\geq 98\%$

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

Nociceptin (1-11) (human, mouse, rat, porcine, bovine) is supplied as a solid. A stock solution may be made by dissolving the nociceptin (1-11) (human, mouse, rat, porcine, bovine) in the solvent of choice, which should be purged with an inert gas. Nociceptin (1-11) (human, mouse, rat, porcine, bovine) is soluble (≥ 10 mg/ml) in DMSO.

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 (1-11) (human, mouse, rat, porcine, bovine) can be prepared by directly dissolving the solid in aqueous buffers. Nociceptin (1-11) (human, mouse, rat, porcine, bovine) is soluble (≥ 10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

Nociceptin (1-11) is a peptide fragment of nociceptin (Item No. 15070) and a ligand for the nociceptin opioid peptide (NOP) receptor.¹ It binds NOP receptor 1 ($K_i = 1.3 \mu\text{M}$). Nociceptin (1-11) inhibits forskolin-induced cAMP accumulation in CHO cells expressing NOP receptor 1 ($\text{EC}_{50} = 3.4 \mu\text{M}$). It (5 or 10 μg) increases the latency to tail withdrawal from a radiant heat source in a rat model of neuropathic pain when administered at doses of 5 or 10 μg , i.c.v.²

References

1. Butour, J.L., Moisand, C., Mazarguil, H., et al. Recognition and activation of the opioid receptor-like ORL 1 receptor by nociceptin, nociceptin analogs and opioids. *Eur. J. Pharmacol.* **321**(1), 97-103 (1997).
2. Rossi, G.C., Perlmutter, M., Leventhal, L., et al. Nociceptin/nociceptin analgesia in the rat. *Brain Res.* **792**(2), 327-330 (1998).

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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