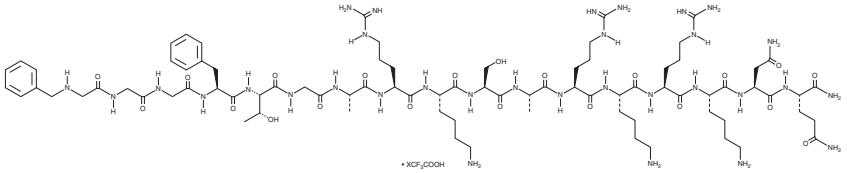
PRODUCT INFORMATION

UFP101 (trifluoroacetate salt)

Item No. 36833

Formal Name:	N-(phenylmethyl) glycylglycylglycyl-L-phenylalanyl-L-threonylglycyl-L-alanyl-L-arginyl-L-lysyl-L-seryl-L-alanyl-L-arginyl-L-lysyl-L-arginyl-L-lysyl-L-asparaginyl-L-glutamamide, trifluoroacetate salt
Peptide Sequence:	BnGGGFTGARKSARKRKNQ-NH_2
MF:	$C_{82}H_{138}N_{32}O_{21} \bullet XCF_3COOH$
FW:	1,908.2
Purity:	≥95%
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

UFP101 (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the UFP101 (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. UFP101 (trifluoroacetate salt) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of UFP101 (trifluoroacetate salt) in these solvents is approximately 10 and 5 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 UFP101 (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of UFP101 (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

UFP101 is a synthetic peptide and an antagonist of the nociceptin receptor (K_i = 0.06 nM in CHO cells expressing the human receptor).[1] It is selective for the nociceptin receptor over the κ-opioid receptor (K_i = 204 nM in CHO cells expressing the rat receptor). UFP101 inhibits GTPγS release from the nociceptin receptor expressed in CHO cell membranes (EC_{50} = 1.86 nM). Intracerebroventricular administration of UFP101 (10 nmol/animal) increases the latency to tail withdrawal in the tail-flick test in mice. UFP101 (0.003, 0.03, and 0.3 mg/kg) increases survival in a mouse model of sepsis induced by cecal ligation and puncture.[2]

References

1. Calo, G., Rizzi, A., Rizzi, D., *et al.* [Nphe[1],Arg[14],Lys[15]]nociceptin-NH_2, a novel potent and selective antagonist of the nociceptin/orphanin FQ receptor. *Br. J. Pharmacol.* **136(2)**, 303-311 (2002).
2. Carvalho, D., Petronilho, F., Vuolo, F., *et al.* The nociceptin/orphanin FQ-NOP receptor antagonist effects on an animal model of sepsis. *Intensive Care Med.* **34(12)**, 2284-2290 (2008).

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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