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- Trockeneiszuschlag
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- Expressversand

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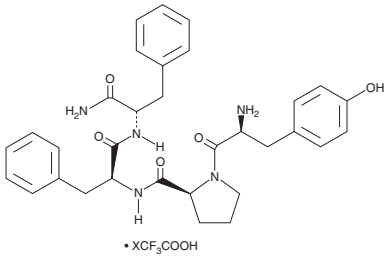
PRODUCT INFORMATION

Endomorphin 2 (trifluoroacetate salt)

Item No. 23281

Formal Name:	L-tyrosyl-L-prolyl-L-phenylalanyl-L-phenylalaninamide, trifluoroacetate salt
Synonym:	Tyr-Pro-Phe-Phe-NH_2
MF:	$C_{32}H_{37}N_5O_5 \bullet XCF_3COOH$
FW:	571.7
Purity:	≥95%
Supplied as:	A lyophilized powder
Storage:	-20°C
Stability:	≥2 years



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

Laboratory Procedures

Endomorphin 2 (trifluoroacetate salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the endomorphin 2 (trifluoroacetate salt) in water. The solubility of endomorphin 2 (trifluoroacetate salt) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Endomorphin 2 is an endogenous neuropeptide and μ-opioid receptor agonist (K_i = 0.69 nM) that has analgesic, negative reinforcing, and gastrointestinal properties.[1,2] It is found in the spinal cord and, to a lesser extent, in the brain.[3] It is selective for μ- over δ- and κ-opioid receptors (K_is = 9,233 and 5,240 nM, respectively).[1] Endomorphin 2 also binds to mouse brain membranes and rat recombinant μ-opioid receptors expressed in CHO cells (K_is = 1.37 and 0.58 nM, respectively).[2] It inhibits cAMP accumulation induced by forskolin in CHO cells expressing rat recombinant μ-opioid receptors and in SH-SY5Y human neuroblastoma cells (IC_{50}s = 7.08 and 7.76 nM, respectively).[4] In mice, endomorphin 2 increases analgesia in a radiant heat tail-flick assay in mice following intracerebroventricular (i.c.v.) or intrathecal administration (ED_{50}s = 1.99 and 3.81 μg, respectively) and induces conditioned place aversion when administered intracerebroventricularly at a dose of 10 μg.[2] It also decreases gastrointestinal transit time in mice when administered intracerebroventricularly at a dose of 3 μg.[2]

References

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2. Goldberg, I.E., Rossi, G.C., Letchworth, S.R., *et al*. Pharmacological characterization of endomorphin-1 and endomorphin-2 in mouse brain. *J. Pharmacol. Exp. Ther*. **286(2)**, 1007-1013 (1998).
3. Martin-Schild, S., Gerall, A.A., Kastin, A.J., *et al*. Differential distribution of endomorphin 1- and endomorphin 2-like immunoreactivities in the CNS of the rodent. *J. Comp. Neurol*. **405(4)**, 450-471 (1999).
4. Harrison, C., McNulty, S., Smart, D., *et al*. The effects of endomorphin-1 and endomorphin-2 in CHO cells expressing recombinant μ-opioid receptors and SH-SY5Y cells. *Br. J. Pharmacol*. **128(2)**, 472-478 (1999).

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