

PRODUCT INFORMATION



α -Endorphin (human, mouse, rat, porcine, bovine, ovine)

Item No. 24958

CAS Registry No.: 59004-96-5

Formal Name: L-tyrosylglycylglycyl-L-phenylalanyl-L-methionyl-L-threonyl-L-seryl-L- α -glutamyl-L-lysyl-L-seryl-L-glutaminyl-L-threonyl-L-prolyl-L-leucyl-L-valyl-L-threonine

MF: $C_{77}H_{120}N_{18}O_{26}S$

FW: 1,746.0

Purity: $\geq 95\%$

Supplied as: A lyophilized powder

Storage: -20°C

Stability: ≥ 4 years

H-Tyr-Gly-Gly-Phe-Met-Thr-Ser-Glu-Lys-Ser-

Gln-Thr-Pro-Leu-Val-Thr-OH

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

Laboratory Procedures

α -Endorphin (human, mouse, rat, porcine, bovine, ovine) is supplied as a lyophilized powder. A stock solution may be made by dissolving the α -endorphin (human, mouse, rat, porcine, bovine, ovine) in water. The solubility of α -endorphin (human, mouse, rat, porcine, bovine, ovine) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

α -Endorphin is an endogenous neuropeptide that binds to opioid receptors in guinea pig brain membranes ($IC_{50} = 97$ nM).¹ It induces chemotaxis of human monocytes *in vitro* when used at a concentration of 0.1 nM and inhibits electrically-induced contractions in guinea pig ileum and mouse vas deferens (IC_{50} s = 325 and 27.6 nM, respectively).^{1,2} *In vivo*, α -endorphin delays extinction of pole-jumping avoidance behavior in rats (ED_{50} s = 40 and 2 pM, respectively, for s.c. and i.c.v. administration).³

References

1. Waterfield, A.A., Leslie, F.M., Lord, J.A., *et al.* Opioid activities of fragments of β -endorphin and of its leucine65-analogue. Comparison of the binding properties of methionine- and leucine-enkephalin. *Eur. J. Pharmacol.* **58(1)**, 11-18 (1979).
2. Sacerdote, P. and Panerai, A.E. Analysis of the beta-endorphin structure-related activity on human monocyte chemotaxis: Importance of the N- and C-terminal. *Peptides* **10(3)**, 565-569 (1989).
3. de Wied, D., Bohus, B., van Ree, J.M., *et al.* Behavioral and electrophysiological effects of peptides related to lipotropin (β -LPH). *J. Pharmacol. Exp. Ther.* **204(3)**, 570-580 (1978).

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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