β-Endorphin (6-31), human

Cat. No.:	HY-P3517
CAS No.:	77761-27-4
Molecular Formula:	$C_{131}H_{218}N_{34}O_{40}$
Molecular Weight:	2909.38
Sequence:	Thr-Ser-Glu-Lys-Ser-Gln-Thr-Pro-Leu-Val-Thr-Leu-Phe-Lys-Asn-Ala-Ile-Ile-Lys-Asn-Ala-Tyr-Lys-Lys-Gly-Glu
Sequence Shortening:	TSEKSQTPLVTLFKNAIIKNAYKKGE
Target:	Opioid Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description

β-Endorphin, an endogenous opioid neuropeptide, is an opioid receptor agonist. β-Endorphin binds preferentially to μ-opioid receptors and is produced in certain neurons of the central and peripheral nervous system and is one of three endorphins produced in humans. β-Endorphin can be used to reduce stress and maintain homeostasis in the body and is involved in neurological pain perception regulation[1].

In Vivo

β-Endorphin (0.03 to 1.00 μg/kg, i.p., once) impairs retention of a one-trial inhibitory avoidance task in a dose-dependent manner in male Swiss mice immediately post-training. Also, it works in the process of memory consolidation[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Adult male Swiss mice (22-25 g)[1]
Dosage:	0.03, 0.10, 0.30 or 1.00 μg/kg
Administration:	i.p., once
Result:	Significantly impaired retention at the doses of 0.03 and 0.10 μg/kg while not significantly affect retention as compared with the control group at the two higher doses of 0.30 and 1.00 μg/kg , but tended to increase retention as compared with the dose of 0.10 μg/kg. Increased latencies to step-through at the two higher doses of 0.30 and 1.00 μg/kg but no effect at lower doses.

REFERENCES

[1]. Introini IB, et al. The impairment of retention induced by beta-endorphin in mice may be mediated by a reduction of central cholinergic activity. Behav Neural Biol. 1984 Jul;41(2):152-63.

Caution: Product has not been fully validated for medical applications. For research use only.

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