



LKT Laboratories, Inc.

β -Endorphin, rat

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Product Information

Product ID E5218

CAS No. 77367-63-6

Chemical Name

Synonym β -Lipotropin (61-91), rat; Proopiomelanocortin; POMC.

Formula $C_{157}H_{254}N_{42}O_{44}S$

Formula Wt. 3466.09

Melting Point

Purity $\geq 95\%$

Solubility Soluble in water.

Store Temp $-20^{\circ}C$

Ship Temp Ambient

Description

β -Endorphin is an endogenous opioid peptide that acts as an agonist at μ -opioid receptors (μ ORs) and exhibits immunomodulatory, neuromodulatory, antidepressant, and antinociceptive/analgesic activities. In vivo, β -endorphin increases levels of B-cells and production of antibodies as well as secretion of IL-4 and proliferation of spleenocytes, shifting the immune response toward Th2-specific mediators. This peptide, like other endogenous opioids, plays a significant role in reward and reinforcement signaling, especially in brain regions such as the ventral tegmental area (VTA) and nucleus accumbens (NAcc). β -Endorphin release is induced during exercise and shows antidepressant activity in clinical studies.

H-Tyr-Gly-Gly-Phe-Met-Thr-Ser-Glu-Lys-Ser-Gln-Thr-Pro-Leu-Val-Thr-Leu-Phe-Lys-Asn-Ala-Ile-Ile-Lys-Asn-Val-His-Lys-Lys-Gly-Gln-OH

Bulk quantities available upon request

Product ID	Size
E5218	1 mg
E5218	2 mg
E5218	5 mg

References

Charbogne P, Kieffer BL, Befort K. 15 years of genetic approaches in vivo for addiction research: Opioid receptor and peptide gene knockout in mouse models of drug abuse. *Neuropharmacology*. 2014 Jan;76 Pt B:204-17. PMID: 24035914.

Gein SV, Baeva TA, Nebogatikov VO, et al. β -Endorphin effects on antibody production, proliferation, and secretion of Th1/Th2 cytokines in vivo. *Bull Exp Biol Med*. 2012 Mar;152(5):595-9. PMID: 22803142.

Dinas PC, Koutedakis Y, Flouris AD. Effects of exercise and physical activity on depression. *Ir J Med Sci*. 2011 Jun;180(2):319-25. PMID: 21076975.

Horváth G, Mécs L. Antinociception by endogenous ligands at peripheral level. *Ideggyogy Sz*. 2011 Mar 30;64(5-6):193-207. PMID: 21688721.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.