LKT Laboratories, Inc.

Met-Enkephalin Amide

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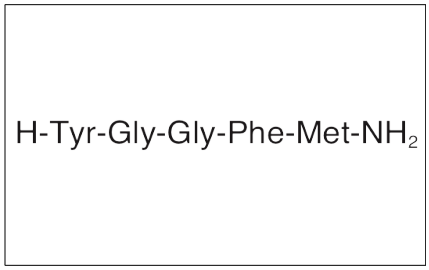
Product Information

Product ID E2542
CAS No. 60117-17-1
Chemical Name



Synonym Enkephalinamide-met-, Methionine enkephalinamide

Formula $C_{27}H_{36}N_6O_6S$
Formula Wt. 572.69
Melting Point
Purity ≥95%
Solubility Soluble in water.

Bulk quanitites available upon request

Product ID	Size
E2542	10 mg
E2542	20 mg
E2542	50 mg

Store Temp -20˚C
Ship Temp Ambient

Description Met-enkephalin is an endogenous opioid peptide that acts as an agonist at μ-opioid receptors (μORs) and δ-opioid receptors (δORs). Met-enkephalin exhibits neuromodulatory, antinociceptive/analgesic, antidepressant, and gastrointestinal motility modulating activities. Like other endogenous opioids, met-enkephalin modulates expression of opioid receptors and plays a role in reward/reinforcement signaling. Met-enkephalin is also involved in exercise-induced reversal of neuropathic pain and in animals undergoing the forced swim test, decreases immobility time. Met-enkephalin inhibits gastrointestinal muscle contractility, inhibiting motility and gastric emptying. Additionally, analogs of this peptide display anticancer and antiepileptic/anticonvulsant activities.

References

Gonzalez-Nunez V, Jimenez González A, Barreto-Valer K, et al. In vivo regulation of the μ opioid receptor: role of the endogenous opioid agents. Mol Med. 2013 Mar 5;19:7-17. PMID: 23348513.

Fanning RA, McMorrow JP, Campion DP, et al. Opioid mediated activity and expression of mu and delta opioid receptors in isolated human term non-labouring myometrium. Eur J Pharmacol. 2013 Jan 5;698(1-3):170-7. PMID: 23051674.

Hadjiconstantinou M, Neff NH. Nicotine and endogenous opioids: neurochemical and pharmacological evidence. Neuropharmacology. 2011 Jun;60(7-8):1209-20. PMID: 21108953.

Stagg NJ, Mata HP, Ibrahim MM, et al. Regular exercise reverses sensory hypersensitivity in a rat neuropathic pain model: role of endogenous opioids. Anesthesiology. 2011 Apr;114(4):940-8. PMID: 21386701.

Gredicak M, Supek F, Kralj M, et al. Computational structure-activity study directs synthesis of novel antitumor enkephalin analogs. Amino Acids. 2010 Apr;38(4):1185-91. PMID: 19639251.

Lee HK, Smith MD, Smith BJ, et al. Anticonvulsant Met-enkephalin analogues containing backbone spacers reveal alternative non-opioid signaling in the brain. ACS Chem Biol. 2009 Aug 21;4(8):659-71. PMID: 19634861.