



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 $\geq 95\%$

Solubility Soluble in water.

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

Ship Temp Ambient

Description Met-enkephalin is an endogenous opioid peptide that acts as an agonist at μ -opioid receptors (μ ORs) and δ -opioid receptors (δ ORs). 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.

H-Tyr-Gly-Gly-Phe-Met-NH₂

Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
E2542	10 mg	\$66.20
E2542	20 mg	\$110.10
E2542	50 mg	\$195.30

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.

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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.

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