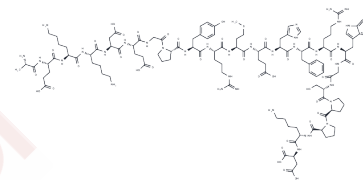


beta-MSH, human

Chemical Properties

CAS No. : 17908-57-5
Formula: C118H174N34O35S
Molecular Weight: 2660.92
Storage: Keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

Description	beta-MSH, human is an endogenous peptide hormone and neurotransmitter produced by pro-opiomelanocortin (POMC), and is also an agonist of MC4-R (melanocortin 4 receptor).
Targets(IC50)	Melanocortin Receptor
In vitro	In human THP-1 monocytic cells, beta-MSH (0.1-100 nM) suppressed lipopolysaccharide (LPS, 10 ng/mL)-induced TNF- α production in a concentration-dependent manner, with maximal inhibition observed at 1-10 nM. beta-MSH did not significantly alter IL-10 expression but reduced proinflammatory cytokine production via activation of melanocortin receptors, particularly MC1R and MC3R[1].
In vivo	In mouse models, intraperitoneal injection of beta-MSH (0.5 mg/kg) significantly reduced plasma TNF- α levels induced by LPS (0.5 mg/kg) and attenuated inflammatory responses[1].

Solubility Information

Solubility	H2O: 50 mg/mL (18.79 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.3758 mL	1.879 mL	3.7581 mL
5 mM	0.0752 mL	0.3758 mL	0.7516 mL
10 mM	0.0376 mL	0.1879 mL	0.3758 mL
50 mM	0.0075 mL	0.0376 mL	0.0752 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Harrold JA, Widdowson PS, Williams G. beta-MSH: a functional ligand that regulated energy homeostasis via hypothalamic MC4-R? Peptides. 2003 Mar;24(3):397-405.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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