

γ-1-Melanocyte Stimulating Hormone (MSH), amide

Cat. No.:	HY-P1531
Molecular Formula:	C ₇₂ H ₉₇ N ₂₁ O ₁₄ S
Molecular Weight:	1512.9
Sequence Shortening:	YVMGHFRWDRF-NH ₂
Target:	Melanocortin Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Sealed storage, away from moisture and light, under nitrogen Powder -80°C 2 years -20°C 1 year * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light, under nitrogen)

YVMGHFRWDRF-NH₂

SOLVENT & SOLUBILITY

In Vitro	H ₂ O : 25 mg/mL (16.52 mM; Need ultrasonic)					
		Solvent Concentration	Mass			
	Preparing Stock Solutions			1 mg	5 mg	10 mg
		1 mM		0.6610 mL	3.3049 mL	6.6098 mL
		5 mM		0.1322 mL	0.6610 mL	1.3220 mL
	10 mM		0.0661 mL	0.3305 mL	0.6610 mL	
Please refer to the solubility information to select the appropriate solvent.						

BIOLOGICAL ACTIVITY

Description	γ-1-Melanocyte Stimulating Hormone (MSH), amide is a 11-amino acid peptide. γ-1-Melanocyte Stimulating Hormone (MSH) regulates sodium (Na ⁺) balance and blood pressure through activation of the melanocortin receptor 3 (MC3-R).
IC₅₀ & Target	Melanocortin receptor 3 (MC3-R) ^[1]
In Vitro	γ-Melanocyte Stimulating Hormone (γ-MSH) regulates a multitude of metabolic functions including energy homeostasis, food intake, sodium (Na ⁺) balance, and blood pressure regulation. γ-MSH is processed from the precursor hormone pro-opio-melanocortin (POMC) in the pituitary gland, where component peptides are released into the cerebral spinal fluid and systemic circulation. The natural receptor for γ-MSH is the melanocortin receptor 3 (MC3-R), a G-protein-coupled receptor that activates adenylate cyclase and is expressed in brain (hypothalamus, cortex, and thalamus), gut, placenta, and kidney. γ-MSH regulates Na ⁺ balance by inducing urinary Na ⁺ excretion (natriuresis) under conditions of high dietary salt intake ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Kathpalia PP, et al. The natriuretic mechanism of Gamma-Melanocyte-Stimulating Hormone. Peptides. 2011 May;32(5):1068-72.

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

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