



LKT Laboratories, Inc.  
 **$\alpha$ -Melanocyte Stimulating Hormone**

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*Product Information*

Product ID M7528

CAS No. 581-05-5

**Chemical Name**

Synonym  $\alpha$ -MSH, alpha-Melanotropin,  $\alpha$ -MSH

Formula  $C_{77}H_{109}N_{21}O_{19}S$

Formula Wt. 1664.9

Melting Point

Purity  $\geq 98\%$

Solubility Soluble in water (1 mg/mL).

Ac-Ser-Tyr-Ser-Met-Glu-His-  
Phe-Arg-Trp-Gly-Lys-Pro-Val-  
NH<sub>2</sub>

***Bulk quantities available upon request***

Product ID	Size
M7528	1 mg

Store Temp -20° C

Ship Temp Ambient

**Description**  $\alpha$  Melanocyte-stimulating hormone ( $\alpha$ -MSH) is an endogenous POMC-derived peptide in the pituitary involved in energy homeostasis and melanin production that activates melanocortin receptors.  $\alpha$ -MSH exhibits anti-inflammatory, neuroprotective, cognition enhancing, anxiolytic, and antioxidative activities. In vivo,  $\alpha$ -MSH decreases the intensity of acetaminophen-induced liver lesions. In animal models of Alzheimer's disease,  $\alpha$ -MSH prevents loss of GABAergic neurons, decreases anxiety levels, and improves spatial memory.  $\alpha$ -MSH also decrease apoptosis and oxidative stress in diabetic retinas by inhibiting upregulation of Foxo4 induced by glucose.

**References** Ma K, McLaurin J.  $\alpha$ -Melanocyte Stimulating Hormone Prevents GABAergic Neuronal Loss and Improves Cognitive Function in Alzheimer's Disease. *J Neurosci.* 2014 May 14;34(20):6736-45. PMID: 24828629.

Zhang L, Dong L, Liu X, et al.  $\alpha$ -Melanocyte-stimulating hormone protects retinal vascular endothelial cells from oxidative stress and apoptosis in a rat model of diabetes. *PLoS One.* 2014 Apr 2;9(4):e93433. PMID: 24695675.

Blagaić V, Houra K, Turčić P, et al. The influence of alpha-, beta-, and gamma-melanocyte stimulating hormone on acetaminophen induced liver lesions in male CBA mice. *Molecules.* 2010 Mar 3;15(3):1232-41. PMID: 20335976.

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