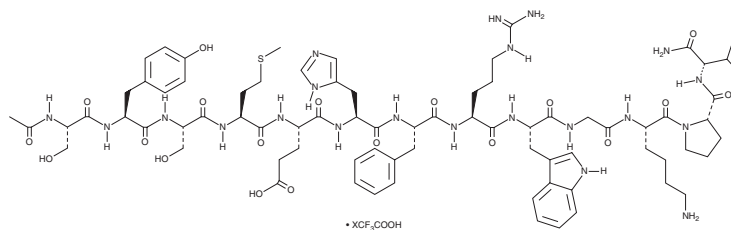


PRODUCT INFORMATION



α -MSH (human, mouse, rat, porcine, bovine, ovine) (trifluoroacetate salt)
Item No. 29923

CAS Registry No.: 171869-93-5
Synonyms: α -Melanocyte-stimulating Hormone,
Ac-SYSMEHFRWGKPV-NH₂
MF: C₇₇H₁₀₉N₂₁O₁₉S • XCF₃COOH
FW: 1,664.9
Purity: \geq 98%
Supplied as: A solid
Storage: -20°C
Stability: \geq 2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

α -MSH (human, mouse, rat, porcine, bovine, ovine) (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the α -MSH (human, mouse, rat, porcine, bovine, ovine) (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. α -MSH (human, mouse, rat, porcine, bovine, ovine) (trifluoroacetate salt) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of α -MSH (human, mouse, rat, porcine, bovine, ovine) (trifluoroacetate salt) in these solvents is approximately 25 and 10 mg/ml, respectively.

α -MSH (human, mouse, rat, porcine, bovine, ovine) (trifluoroacetate salt) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, α -MSH (human, mouse, rat, porcine, bovine, ovine) (trifluoroacetate salt) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. α -MSH (human, mouse, rat, porcine, bovine, ovine) (trifluoroacetate salt) has a solubility of approximately 0.16 mg/ml in a 1:5 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

α -Melanocyte-stimulating hormone (α -MSH) is a 13-amino acid peptide hormone produced by post-translational processing of proopiomelanocortin (POMC) in the pituitary gland, as well as in keratinocytes, astrocytes, monocytes, and gastrointestinal cells.¹ It is an agonist of melanocortin receptor 3 (MC3R) and MC4R that induces cAMP production in Hepa cells expressing the human receptors (EC₅₀s = 0.16 and 56 nM, respectively).² α -MSH (100 pM) reduces *S. aureus* colony formation and *C. albicans* germ tube formation *in vitro*.³ It inhibits endotoxin-, ceramide-, TNF- α -, or okadaic acid-induced activation of NF- κ B in U937 cells.¹ α -MSH reduces IL-6- or TNF- α -induced ear edema in mice.⁴ It also prevents the development of adjuvant-induced arthritis in rats and increases survival in a mouse model of septic shock. Increased plasma levels of α -MSH are positively correlated with delayed disease progression and reduced death in patients with HIV.¹

References

1. Catania, A., Airaghi, L., Colombo, G., et al. *Trends Endocrinol. Metab.* **11(8)**, 304-308 (2000).
2. Miwa, H., Gantz, I., Konda, Y., et al. *J. Pharmacol. Exp. Ther.* **273(1)**, 367-372 (1995).
3. Cutuli, M., Cristiani, S., Lipton, J.M., et al. *J. Leukoc. Biol.* **67(2)**, 233-239 (2000).
4. Lipton, J.M., Ceriani, G., Macaluso, A., et al. *Ann. N.Y. Acad. Sci.* **25(741)**, 137-148 (1994).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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