

PRODUCT INFORMATION

ACTH (1-16) (human, mouse, rat, porcine, bovine, ovine) (trifluoroacetate salt)

Item No. 27273

Formal Name:	α^{1-16} -corticotropin, trifluoroacetate salt	
Synonyms:	Adrenocorticotropic Hormone (1-16), SYSMEHFRWGKPVGKK-OH	H—Ser—Tyr—Ser—Met—Glu—His—Phe—Arg—Trp—Gly— Lys—Pro—Val—Gly—Lys—Lys—OH • XCF ₃ COOH
MF:	C ₈₉ H ₁₃₃ N ₂₅ O ₂₂ S • XCF ₃ COOH	
FW:	1,937.2	
Purity:	≥95%	
Supplied as:	A solid	
Storage:	-20°C	
Stability:	≥4 years	

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

Laboratory Procedures

ACTH (1-16) (human, mouse, rat, porcine, bovine, ovine) (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the ACTH (1-16) (human, mouse, rat, porcine, bovine, ovine) (trifluoroacetate salt) in water. The solubility of ACTH (1-16) (human, mouse, rat, porcine, bovine, ovine) (trifluoroacetate salt) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

ACTH (1-16) is a peptide fragment of adrenocorticotropic hormone (ACTH; Item No. 24257), a peptide hormone found in the brain that is involved in the biological stress response.¹ It binds to melanocortin receptors (MCRs; K_ds = 0.267, 19, 698, and 2,600 nM for MC1R, MC3R, MC4R, and MC5R, respectively).² ACTH (1-16) (160 µg/kg, i.v.) increases mean arterial blood pressure (MAP) following bleeding-induced hypotension in a rat model of hemorrhagic shock 15-30 minutes after administration.³ It increases grooming behavior and the incidence of stretching and yawning syndrome (SYS) in rats when administered intraventricularly at 0.05 or 2 µg.⁴

References

1. Strand, F.L., Lee, S.J., Zuccarelli, L.A., *et al.* Non-corticotropic ACTH peptides modulate nerve development and regeneration. *Rev. Neurosci.* **4(4)**, 321-363 (1993).
2. Schiöth, H.B., Muceniece, R., Larsson, M., *et al.* The melanocortin 1, 3, 4 or 5 receptors do not have a binding epitope for ACTH beyond the sequence of α -MSH. *J. Endocrinol.* **155(1)**, 73-78 (1997).
3. Bertolini, A., Guarini, S., Rompianesi, E., *et al.* α -MSH and other ACTH fragments improve cardiovascular function and survival in experimental hemorrhagic shock. *Eur. J. Pharmacol.* **130(1-2)**, 19-26 (1986).
4. Gispen, W.H., Wiegant, V.M., Greven, H.M., *et al.* The induction of excessive grooming in the rat by intraventricular application of peptides derived from ACTH: Structure-activity studies. *Life Sci.* **17(4)**, 645-652 (1975).

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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