

PRODUCT INFORMATION

ACTH (4-9) (human, mouse, rat, porcine, bovine, ovine) (trifluoroacetate salt)

Item No. 43819

Formal Name:	L-methionyl-L- α -glutamyl-L-histidyl-L-phenylalanyl-L-arginyl-L-tryptophan, trifluoroacetate salt	
Synonyms:	Adrenocorticotrophic Hormone (4-9), Corticotropin (4-9)	
MF:	$C_{42}H_{56}N_{12}O_9S \cdot XCF_3COOH$	H—Met—Glu—His—Phe—Arg—Trp—OH
FW:	905.0	• XCF_3COOH
Purity:	≥98%	
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 (4-9) (human, mouse, rat, porcine, bovine, ovine) (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the ACTH (4-9) (human, mouse, rat, porcine, bovine, ovine) (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. ACTH (4-9) (human, mouse, rat, porcine, bovine, ovine) (trifluoroacetate salt) is slightly soluble (0.1-1 mg/ml) in DMSO and in a 1:1 solution of acetonitrile:water.

Description

Adrenocorticotrophic hormone (ACTH) (4-9) is a peptide fragment of ACTH, a peptide hormone produced by the anterior pituitary gland that is involved in the biological stress response.¹ The amino acid sequence of ACTH (4-9) is common to ACTH and α - and β -melanocyte stimulating hormones.² ACTH (4-9) (50 μ g/kg) reduces neuronal damage induced by dexamethasone (Item No. 11015) in mouse hippocampal pyramidal neurons.³

References

1. Lightman, S.L., Birnie, M.T., and Conway-Campbell, B.L. Dynamics of ACTH and cortisol secretion and implications for disease. *Endocr. Rev.* **41(3)**, 470-490 (2020).
2. Miwa, H., Gantz, I., Konda, Y., *et al.* Structural determinants of the melanocortin peptides required for activation of melanocortin-3 and melanocortin-4 receptors. *J. Pharmacol. Exp. Ther.* **273(1)**, 367-372 (1995).
3. Sekita-Krzak, J., Zebrowska-Lupina, I., Czerny, K., *et al.* Neuroprotective effect of ACTH (4-9) in degeneration of hippocampal nerve cells caused by dexamethasone: Morphological, immunocytochemical and ultrastructural studies. *Acta Neurobiol. Exp. (Wars.)* **63(1)**, 1-8 (2003).

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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