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:	Adrenocorticotropic Hormone (4-9), Corticotropin (4-9)
MF:	$C_{42}H_{56}N_{12}O_9S \bullet XCF_3COOH$
FW:	905.0
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years

H–Met–Glu–His–Phe–Arg–Trp–OH

• XCF_3COOH

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

Adrenocorticotropic 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 µg/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).

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