PRODUCT INFORMATION

ACTH (11-24) (human, mouse, rat, porcine, bovine, ovine) (acetate)

Item No. 41559

Formal Name: $\alpha^{11\text{-}24}$-corticotropin, acetate
Synonyms: $\alpha^{11\text{-}24}$-ACTH, Adrenocorticotropic Hormone (11-24), Corticotropin (11-24)
Peptide Sequence: KPVGKKRRPVKVYP-OH
MF: $C_{77}H_{134}N_{24}O_{16} \bullet XC_2H_4O_2$
FW: 1,652.0
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years

H—Lys—Pro—Val—Gly—Lys—Lys—Arg—Arg—Pro—Val—Lys—Val—Tyr—Pro—OH • XCH_3CO_2H

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

Laboratory Procedures

ACTH (11-24) (human, mouse, rat, porcine, bovine, ovine) (acetate) is supplied as a solid. A stock solution may be made by dissolving the ACTH (11-24) (human, mouse, rat, porcine, bovine, ovine) (acetate) in the solvent of choice, which should be purged with an inert gas. ACTH (11-24) (human, mouse, rat, porcine, bovine, ovine) (acetate) is slightly soluble (0.1-1 mg/ml) in DMSO.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of ACTH (11-24) (human, mouse, rat, porcine, bovine, ovine) (acetate) can be prepared by directly dissolving the solid in aqueous buffers. ACTH (11-24) (human, mouse, rat, porcine, bovine, ovine) (acetate) is soluble (≥10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

Adrenocorticotropic hormone (ACTH) (11-24) is a peptide fragment of ACTH (Item No. 24257), a peptide hormone found in the brain that is involved in the biological stress response, and an antagonist of melanocortin receptor 2 (MC2R), also known as the ACTH receptor (IC_{50} = ~1 nM in HeLa cells expressing the mouse receptor).[1,2] It induces corticosterone and aldosterone production in isolated rat zona glomerulosa and zona fasciculata cells, respectively, with minimum effective concentrations of 4 and 3 µM, respectively.[3] Unlike ACTH (4-11) (Item No. 27430), ACTH (11-24) does not induce differentiation of primary mouse melanocytes.[4] *In vivo*, ACTH (11-24) (1.69 µg/animal, i.c.v.) inhibits ACTH-induced stretching, yawning, and penile erections in rats.[5]

References

1. Strand, F.L., Lee, S.J., Zuccarelli, L.A., *et al. Rev. Neurosci.* **4(4),** 321-363 (1993).
2. Kapas, S., Cammas, F.M., Hinson, J.P., *et al. Endocrinology* **137(8),** 3291-3294 (1996).
3. Szalay, K.S., De Wied, D., and Stark, E. *J. Steroid Biochem.* **32(2),** 259-262 (1989).
4. Hirobe, T. and Hiroyuki, A. *J. Exp. Zool.* **286(6),** 632-640 (2000).
5. Genedani, S. and Bernardi, M. *Neuropeptides* **26(4),** 241-244 (1994).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM