

ACTH (1-17)

Chemical Properties

CAS No.:	7266-47-9
Formula:	C95H145N29O23S
Molecular Weight:	2093.41
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

Biological Description

Description	ACTH (1-17), an adrenocorticotropin analogue, is a potent human melanocortin 1 (MC1) receptor agonist with a K_i of 0.21 nM. Adrenocorticotrophic hormone (ACTH), also known as corticotropin, is produced and secreted by the anterior pituitary gland.
In vitro	ACTH (1-17) is a potent agonist at the hMC1R. ACTH (1-17) shows high affinity for the hMC1R with a K_i value of 0.21 ± 0.03 nM which is slightly higher than that of 0.13 ± 0.005 nM for alpha-MSH[1]. ACTH (1-17) induces a slight and not significant increase in growth hormone secretion even when micromolar concentrations of the peptide are employed in rat pituitary cultures[2].
In vivo	Inhibition of D labeling is noted when the ACTH (1-17) is administered at 2 hr after the beginning of the daily dark span when nocturnal animals become active. When administered at this circadian stage, the larger dose in particular is associated with an inhibition of D labeling lasting for 24 hr. The inhibitory effect is much shorter when the same dose is injected 4 hr earlier[3].

Solubility Information

Solubility	H2O: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.478 mL	2.388 mL	4.777 mL
5 mM	0.096 mL	0.478 mL	0.955 mL
10 mM	0.048 mL	0.239 mL	0.478 mL
50 mM	0.01 mL	0.048 mL	0.096 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Tsatmali M et al. ACTH1-17 is a more potent agonist at the human MC1 receptor than alpha-MSH. Cell Mol Biol (Noisy-le-grand). 1999 Nov;45(7):1029-34.

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