

## ACTH (1-17) acetate

## Chemical Properties

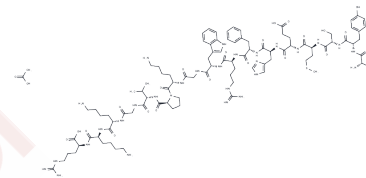
CAS No. :

Formula: C97H149N29O25S

Molecular Weight: 2153.47

Storage: Store at low temperature, Keep away from moisture  
Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	ACTH (1-17) acetate is a potent agonist at the human melanocortin 1 (MC1) receptor with high affinity ( $K_i = 0.21$ nM).
Targets ( $IC_{50}$ )	Melanocortin Receptor
In vitro	ACTH (1-17) acetate induces a slight and not significant increase in growth hormone secretion even when micromolar concentrations of the peptide are employed in rat pituitary cultures[1]. ACTH (1-17) acetate showed an affinity for alpha-MSH with $K_i$ of $0.13 \pm 0.005$ nM[1].
In vivo	When nocturnal animals became active, inhibition of DNA markers was noted when ACTH (1-17) acetate was administered 2 hours after the start of the daily dark span. When administered during this circadian phase, particularly larger doses were associated with a 24-hour lasting inhibition of DNA markers. When the same dose was injected 4 hours earlier, the inhibitory effect was much shorter [2].

## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.4644 mL	2.3218 mL	4.6437 mL
5 mM	0.0929 mL	0.4644 mL	0.9287 mL
10 mM	0.0464 mL	0.2322 mL	0.4644 mL
50 mM	0.0093 mL	0.0464 mL	0.0929 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

- Ceda GP, et al. The effects of ACTH (1-17) on GH secretion in vitro. *Horm Metab Res.* 1987 Aug;19(8):361-3.
- Walker WV, et al. Effect of an adrenocorticotropin analogue, ACTH (1-17), on DNA synthesis in murine metaphyseal bone. *Biochem Pharmacol.* 1985 Apr 15;34(8):1191-6.
- 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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