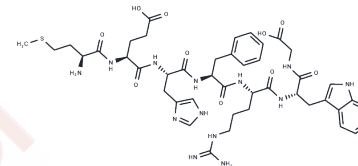


Adrenocorticotrophic Hormone (ACTH) (4-10), human

Chemical Properties

CAS No. : 4037-01-8
 Formula: C44H59N13O10S
 Molecular Weight: 962.09
 Storage: 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	Adrenocorticotrophic Hormone (ACTH) (4-10), human is a potent agonist of the melanocortin receptor (MC4R).
Targets(IC50)	Melanocortin Receptor
In vivo	In humans, Adrenocorticotrophic Hormone (ACTH) (4-10) enters the cerebral fluid compartment after intranasal application and leads to a decrease in total body fat after 6 weeks of continuous treatment[1].

Solubility Information

Solubility	DMSO: 10 mM, Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 1 mg/mL (1.04 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.0394 mL	5.197 mL	10.394 mL
5 mM	0.2079 mL	1.0394 mL	2.0788 mL
10 mM	0.1039 mL	0.5197 mL	1.0394 mL
50 mM	0.0208 mL	0.1039 mL	0.2079 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

Wellhöner P, et al. Intranasal application of the melanocortin 4 receptor agonist MSH/ACTH(4-10) in humans causes lipolysis in white adipose tissue. *Int J Obes (Lond)*. 2012 May;36(5):703-8.

Krude H, Biebermann H, Schnabel D, et al. Obesity Due to Proopiomelanocortin Deficiency: Three New Cases and Treatment Trials with Thyroid Hormone and ACTH4-10[J]. *The Journal of Clinical Endocrinology & Metabolism*, 2003, 88(10):4633-4640.

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