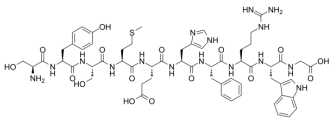
Adrenocorticotropic Hormone (ACTH) (1-10), human



Cat. No.:	HY-P1518
CAS No.:	2791-05-1
Molecular Formula:	$C_{59}H_{78}N_{16}O_{16}S$
Molecular Weight:	1299.41
Sequence:	Ser-Tyr-Ser-Met-Glu-His-Phe-Arg-Trp-Gly
Sequence Shortening:	SYSMEHFRWG
Target:	Others
Pathway:	Others
Storage:	Sealed storage, away from moisture and light, under nitrogen Powder -80°C 2 years -20°C 1 year * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light, under nitrogen)

SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (192.40 mM; Need ultrasonic)

H_2O : 2 mg/mL (1.54 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Concentration / Solvent / Mass	1 mg	5 mg	10 mg
	1 mM	0.7696 mL	3.8479 mL	7.6958 mL
	5 mM	0.1539 mL	0.7696 mL	1.5392 mL
	10 mM	0.0770 mL	0.3848 mL	0.7696 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (1.60 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (1.60 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (1.60 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Adrenocorticotropic Hormone (ACTH) (1-10), human, an adrenocorticotropin hormone fragment, possesses a weak α-melanocyte stimulating hormone (α-MSH) potency only at high doses (100 and 1000 nM).

In Vitro	α-melanocyte stimulating hormone (MSH) induces the differentiation of mouse epidermal melanocytes in vivo and in vitro. Adrenocorticotropic hormone (ACTH) possesses the same amino acid sequence as MSH does[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Hirobe T, et al. ACTH(4-12) is the minimal message sequence required to induce the differentiation of mouse epidermal melanocytes in serum-free primary culture. J Exp Zool. 2000 May 1;286(6):632-40.

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