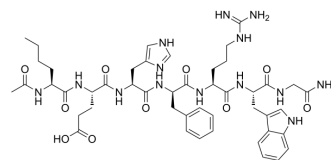


## Ac-[Nle4,D-Phe7]-α-MSH (4-10)-NH<sub>2</sub>

Cat. No.:	HY-P3662
CAS No.:	82188-67-8
Molecular Formula:	C <sub>47</sub> H <sub>64</sub> N <sub>14</sub> O <sub>10</sub>
Molecular Weight:	985.1
Sequence Shortening:	Ac-[Nle]-EH-[d-Phe]-RWG-NH <sub>2</sub>
Target:	Tyrosinase
Pathway:	Metabolic Enzyme/Protease
Storage:	Sealed storage, away from moisture and light
	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)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 100 mg/mL (101.51 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
	Concentration				
	1 mM		1.0151 mL	5.0756 mL	10.1513 mL
	5 mM		0.2030 mL	1.0151 mL	2.0303 mL
	10 mM		0.1015 mL	0.5076 mL	1.0151 mL

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

### BIOLOGICAL ACTIVITY

#### Description

Ac-[Nle4,D-Phe7]-α-MSH (4-10)-NH<sub>2</sub> is a melanotropin, a melanocyte-stimulating hormone. Ac-[Nle4,D-Phe7]-α-MSH (4-10)-NH<sub>2</sub> stimulates tyrosinase and exhibits thermoregulatory effect in rats model<sup>[1][2]</sup>.

#### In Vitro

Ac-[Nle4,D-Phe7]-α-MSH (4-10)-NH<sub>2</sub> (0.1 pM-1 μM; 48 h) stimulates tyrosinase activity in a dose-dependent manner in Cloudman S91 mouse melanoma cells<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### In Vivo

Ac-[Nle4,D-Phe7]-α-MSH (4-10)-NH<sub>2</sub> (0-50 pM; i.c.v.; single dose) exerts thermoregulatory effect in rats model<sup>[2]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Rat model <sup>[2]</sup>
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Dosage:	0, 0.5, 1, 5, 10, or 50 pM peptide in 0.5 µL sterile saline
Administration:	Intracerebroventricular injection in the anterior hypothalamic-preoptic area (AHPOA) of rats; single dose; recorded 0, 10, 20, 30, 40, 50, and 60 min after injection
Result:	Showed greater difference than mean temperatures of animals receiving sterile saline group.

## REFERENCES

- [1]. Marwan MM, et al. Stimulation of S91 melanoma tyrosinase activity by superpotent alpha-melanotropins. Mol Cell Endocrinol. 1985 Jul;41(2-3):171-7.
- [2]. Lyn H, et al.  $\alpha$ -Melanocyte-stimulating hormone (MSH) and [Nle4, D-Phe7]- $\alpha$ -MSH: Effects on core temperature in rats. Pharmacology Biochemistry and Behavior. 1993;44(3):533-538.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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