Melanotan I

Cat. No.: HY-N2466

CAS No.: 75921-69-6

Molecular Formula: $C_{78}H_{111}N_{21}O_{19}$

Molecular Weight: 1646.85

Sequence: Ac-Ser-Tyr-Ser-{Nle}-Glu-His-{d-Phe}-Arg-Trp-Gly-Lys-Pro-Val-NH2

Sequence Shortening: Ac-SYS-{Nle}-EH-{d-Phe}-RWGKPV-NH2

Target: Melanocortin Receptor

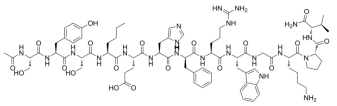
Pathway: GPCR/G Protein; Neuronal Signaling

Storage: Sealed storage, away from moisture

Powder -80°C 2 years

-20°C 1 year

* The compound is unstable in solutions, freshly prepared is recommended.



SOLVENT & SOLUBILITY

In Vitro

H_2O : ≥ 50 mg/mL (30.36 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	0.6072 mL	3.0361 mL	6.0722 mL
	5 mM	0.1214 mL	0.6072 mL	1.2144 mL
	10 mM	0.0607 mL	0.3036 mL	0.6072 mL

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

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 100 mg/mL (60.72 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Melanotan I is a potent non-selective melanocortin receptor (MCR) agonist. Melanotan I is a synthetic analogue of α-melanocyte stimulating hormone (α-MSH) that stimulates melanogenesis. Melanotan I can induce skin tanning by mimicking the actions of a-MSH on the melanocortin type 1 receptors (MC1R) of melanocytes. Melanotan I can be used for sunlight-induced skin cancers research[1][2][3].

IC_{50} & Target

MC1R

CUSTOMER VALIDATION

- Theranostics. 2020 Aug 13;10(24):11110-11126.

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REFERENCES

[1]. Reid C, et al. Atypical melanocytic naevi following melanotan injection. Ir Med J. 2013 May;106(5):148-9.

[2]. Bhardwaj R, et al. Controlled-release delivery system for the alpha-MSH analog melanotan-I using poloxamer 407. J Pharm Sci. 1996 Sep;85(9):915-9.

[3]. Langan EA, et al. Melanotropic peptides: more than just 'Barbie drugs' and 'sun-tan jabs'? Br J Dermatol. 2010 Sep;163(3):451-5.

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