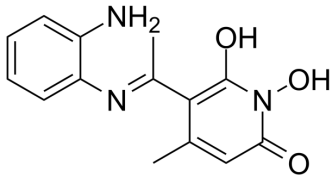
SUN B8155

Cat. No.:	HY-103302
CAS No.:	345893-91-6
Molecular Formula:	$C_{14}H_{15}N_3O_3$
Molecular Weight:	273.29
Target:	CGRP Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (365.91 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.6591 mL	18.2956 mL	36.5912 mL
	5 mM	0.7318 mL	3.6591 mL	7.3182 mL
	10 mM	0.3659 mL	1.8296 mL	3.6591 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (9.15 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

SUN B8155, a non-peptide agonist of calcitonin (CT) receptor, selectively mimics the biological actions of calcitonin. Calcitonin, a 32-amino acid peptide hormone secreted mainly from the thyroid gland, plays an important role in maintaining bone homeostasis[1].

In Vitro

SUN B8155 (1-1000 μM; 1 hour) stimulates intracellular cAMP formation in T47D cells in a concentration-dependent manner; the concentration of synthesized cAMP increased by approximately 42-fold at the highest concentration. SUN B8155 also stimulates cAMP formation in the rat osteogenic sarcoma-derived cell line, UMR106-06[1].

SUN B8155 does not stimulate cAMP formation in CHO/hPTHR or parental CHO cells, but fully stimulates cAMP formation in CHO/hCTR cells in a concentration-dependent manner with an EC_{50} of 21 μM[1].

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

In Vivo

SUN B8155 (100 mg/kg; i.p.) results in a significant reduction of serum calcium concentration by approximately 9% at 30 min

after administration. Human CT also reduces serum calcium in a dose-dependent manner at 30 min (0.1 and 0.3 μg/kg) and 60 min (0.3 μg/kg) after administration[1].

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

REFERENCES

[1]. Katayama T, et al. Discovery of a non-peptide small molecule that selectively mimics the biological actions of calcitonin. Biochim Biophys Acta. 2001;1526(2):183-190.

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