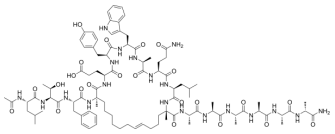
Sulanemadlin

Cat. No.: HY-P4210

CAS No.: 1451199-98-6

Molecular Formula: $C_{95}H_{140}N_{20}O_{23}$

Molecular Weight: 1930.25



Sequence: Ac-Leu-Thr-Phe-Ala-Glu-Tyr-Trp-Ala-Gln-Leu-{dAla}-Ala-Ala-Ala-Ala-Ala-{dAla}-NH2(staple between Ala4 and d-Ala11)

Sequence Shortening: Ac-LTFAEYWAQL(dA)AAAAA(dA)-NH2 (staple between Ala4 and d-Ala11)

Target: MDM-2/p53

Pathway: Apoptosis

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 : ≥ 100 mg/mL (51.81 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	0.5181 mL	2.5903 mL	5.1807 mL
5 mM	0.1036 mL	0.5181 mL	1.0361 mL
10 mM	0.0518 mL	0.2590 mL	0.5181 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: ≥ 2.5 mg/mL (1.30 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (1.30 mM); Suspended solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (1.30 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Sulanemadlin (ALRN-6924) is a potent and cell-permeating p53-based peptidomimetic macrocycles. Sulanemadlin is a inhibitor of the p53-MDM2, p53-MDMX, or both p53 and MDM2 and MDMX protein-protein interactions. Sulanemadlin can be

	used for cancers research[1].
In Vitro	Sulanemadlin (0-10 μM, 24 h) induces reversible, dose-dependent cell cycle arrest in CD34+ human bone marrow cells, and protects cells from Topotecan (HY-13768)-induced DNA damage[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Sulanemadlin (5-20 mg/kg, i.v.) shows antitumor activity in multiple TP53-WT subcutaneous mouse xenograft models[1]. Sulanemadlin (2.4 mg/kg, daily with for 5 days, 24 h prior to daily 1.5 mg/kg Topotecan) protects mice against Topotecan-induced neutropenia and gastrointestinal toxicity in mice, without diminishing Topotecan antitumor activity in TP53-mutant cancer models[1]. PK properties of Sulanemadlin. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Species	Dose (mg/kg)	C_{max} (μg/mL)	AUC_{all} (μg·h/mL)	$T_{1/2}$ (h)	CL (mL/h/kg)
Mouse	5	67.8	450	2.2	11
Rat	5	95.9	223	2.0	24
Monkey	5	137	914	4.9	5.9

Animal Model:	MCF-7 breast cancer, SJSA1 osteosarcoma, and patient-derived melanoma xenograft models[1]
Dosage:	5-20 mg/kg
Administration:	i.v.
Result:	Inhibited tumor growth. Induced accumulation of the p53 protein and increased p21 protein expression (maximum effect at 16 h post-dose). Decreased BrdU level.

REFERENCES

[1]. Manuel AIVADO, et al. Peptidomimetic macrocycles and uses thereof. WO2018208954A2

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA