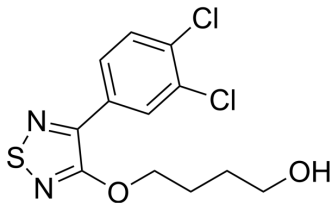
EMT inhibitor-1

Cat. No.:	HY-101275
CAS No.:	1638526-21-2
Molecular Formula:	$C_{12}H_{12}Cl_2N_2O_2S$
Molecular Weight:	319
Target:	Hippo (MST); TGF-beta/Smad; Wnt
Pathway:	Stem Cell/Wnt; TGF-beta/Smad
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (313.48 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	3.1348 mL	15.6740 mL	31.3480 mL
	5 mM	0.6270 mL	3.1348 mL	6.2696 mL
	10 mM	0.3135 mL	1.5674 mL	3.1348 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 (7.84 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (7.84 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (7.84 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

EMT inhibitor-1 is an inhibitor of of Hippo, TGF-β, and Wnt signaling pathways with antitumor activities.

IC_{50} & Target

Hippo, TGF-β, Wnt[1].

In Vitro

EMT inhibitor-1 (C19) (0-10μM; 24 hours) is an inhibitor of of Hippo, TGF-β, and Wnt signaling pathways with antitumor activities, inhibiting cancer cell migration, proliferation, and resistance to doxorubicin in vitro[1].

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

In Vivo	EMT inhibitor-1 (C19) (intraperitoneal injection; 5-20 mg/kg) exerts strong antitumor activity in a mouse tumor model. Mechanistically, EMT inhibitor-1 induces GSK3-β–mediated degradation of the Hippo transducer TAZ, through activation of the Hippo kinases Mst/Lats and the tumor suppressor kinase AMPK upstream of the degradation complex[1].C19 is dissolved in the vehicle solution (100 μL of DMEM containing 5% dimethyl sulfoxide). MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Technol Cancer Res Treat. Jan-Dec 2021;20:15330338211033077.
- Int Arch Allergy Immunol. 2021 Feb 25;1-10.

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REFERENCES

[1]. Basu D, et al. Identification, mechanism of action, and antitumor activity of a small molecule inhibitor of hippo, TGF-β, and Wnt signaling pathways. Mol Cancer Ther. 2014 Jun;13(6):1457-67.

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