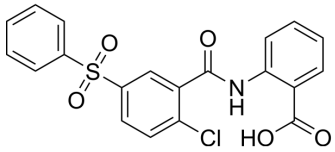
BAY-8002

Cat. No.:	HY-122312
CAS No.:	724440-27-1
Molecular Formula:	$C_{20}H_{14}ClNO_5S$
Molecular Weight:	415.85
Target:	Monocarboxylate Transporter
Pathway:	Membrane Transporter/Ion Channel
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 : 125 mg/mL (300.59 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.4047 mL	12.0236 mL	24.0471 mL
	5 mM	0.4809 mL	2.4047 mL	4.8094 mL
	10 mM	0.2405 mL	1.2024 mL	2.4047 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: ≥ 2.08 mg/mL (5.00 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.08 mg/mL (5.00 mM); Suspended solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.00 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

BAY-8002 is a potent, selective, orally active inhibitor of monocarboxylate transporter 1 (MCT1), with an IC_{50} of 85 nM in the MCT1-expressing DLD-1 cells, displays excellent selectivity against MCT4. Anti-tumor activity[1].

IC_{50} & Target

MCT1

In Vitro

BAY-8002 is an inhibitor of MCT1, with an IC_{50} of 85 nM in the MCT1-expressing DLD-1 cells, displays excellent selectivity against MCT4 (IC_{50} >50 μM in EVSA-T cells)[1].

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

In Vivo

BAY-8002 (80 and 160 mg/kg, p.o., twice daily, for more than 26 days) significantly inhibits tumor growth in Raji tumor-bearing mice[1].

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

Animal Model:	Female NOD SCID mice bearing Raji cells (7-10 weeks old)[1]
Dosage:	80 and 160 mg/kg
Administration:	P.O. twice daily for more than 26 days
Result:	Inhibited tumor growth with no obvious body weight loss, but showed no effect on tumor regression.

CUSTOMER VALIDATION

- Cell. 2021 Jan 21;184(2):370-383.e13.
- Blood. 2021 Oct 5;blood.2021011563.
- Crit Rev Anal Chem. 2021 Mar 10;1-15.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Quanz M, et al. Preclinical Efficacy of the Novel Monocarboxylate Transporter 1 Inhibitor BAY-8002 and Associated Markers of Resistance. Mol Cancer Ther. 2018 Nov;17(11):2285-2296.

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