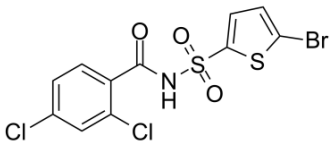
Tasisulam

Cat. No.:	HY-14804
CAS No.:	519055-62-0
Molecular Formula:	$C_{11}H_6BrCl_2NO_3S_2$
Molecular Weight:	415.11
Target:	Apoptosis
Pathway:	Apoptosis
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 : 250 mg/mL (602.25 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.4090 mL	12.0450 mL	24.0900 mL
	5 mM	0.4818 mL	2.4090 mL	4.8180 mL
	10 mM	0.2409 mL	1.2045 mL	2.4090 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 (5.01 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (5.01 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.01 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Tasisulam is a anticancer agent and induces apoptosis via the intrinsic pathway, resulting in cytochrome c release and caspase-dependent cell death. Tasisulam inhibits mitotic progression and induces vascular normalization[1].

In Vitro

Tasisulam (200 nM-200 μM; 48 hours) induces an antiproliferative response across a wide range of tumor histologies with EC_{50}s of 10 μM and 25 μM for Calu-6 and A-375 cell lines, respectively[1].
Tasisulam (25, 50 μM; 72 hours) induces a concentration-dependent increase in 4N DNA and G2-M accumulation[1].
Tasisulam (200 nM-200 μM; 48 hours) induces apoptosis in a broad range of in vitro cancer cell models[1].

Tasisulam also blocks VEGF, epidermal growth factor, and fibroblast growth factor-induced endothelial cell cord formation [1].

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

Cell Proliferation Assay[1]

Cell Line:	Calu-6 non-small cell lung carcinoma and A-375 melanoma models
Concentration:	200 nM-200 μM
Incubation Time:	48 hours
Result:	Induced an antiproliferative response across a wide range of tumor histologies with EC_{50}s are 10 μM and 25 μM, respectively.

Cell Cycle Analysis[1]

Cell Line:	Calu-6 and A-375 cell lines
Concentration:	25, 50 μM
Incubation Time:	72 hours
Result:	Induced a concentration-dependent increase in 4N DNA and G2-M accumulation.

Apoptosis Analysis[1]

Cell Line:	Calu-6 non-small cell lung carcinoma and A-375 melanoma models
Concentration:	200 nM-200 μM
Incubation Time:	48 hours
Result:	Induced apoptosis in a broad range of in vitro cancer cell models.

REFERENCES

[1]. Meier T, et al. Tasisulam sodium, an antitumor agent that inhibits mitotic progression and induces vascular normalization. Mol Cancer Ther. 2011 Nov;10(11):2168-78.

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