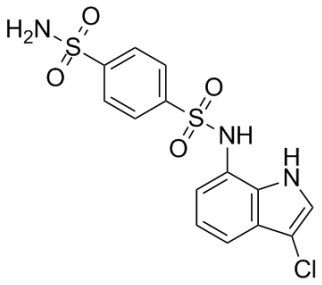
Indisulam

Cat. No.:	HY-13650
CAS No.:	165668-41-7
Molecular Formula:	$C_{14}H_{12}ClN_3O_4S_2$
Molecular Weight:	385.85
Target:	Carbonic Anhydrase
Pathway:	Metabolic Enzyme/Protease
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



Solvent & Solubility

In Vitro

DMSO : 130 mg/mL (336.92 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.5917 mL	12.9584 mL	25.9168 mL
	5 mM	0.5183 mL	2.5917 mL	5.1834 mL
	10 mM	0.2592 mL	1.2958 mL	2.5917 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: ≥ 2.17 mg/mL (5.62 mM); Clear solution
2. Add each solvent one by one: **10% DMSO >> 90% corn oil**
   Solubility: ≥ 2.17 mg/mL (5.62 mM); Clear solution
3. Add each solvent one by one: **10% DMSO >> 90% (20% SBE-β-CD in saline)**
   Solubility: ≥ 2.17 mg/mL (5.62 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Indisulam (E 7070) is a **carbonic anhydrase** inhibitor and a G1-targeting agent. Indisulam causes a blockade in the G1/S transition through inhibition of the activation of both cyclin-dependent kinase 2 (CDK2) and cyclin E. Shows anti-tumor activity in human colon and lung cancer cells[1][2].

IC_{50} & Target

Carbonic anhydrase[1].

REFERENCES

[1]. Ozawa Y, et al. E7070, a novel sulphonamide agent with potent antitumour activity in vitro and in vivo. Eur J Cancer. 2001 Nov;37(17):2275-82.

[2]. Abbate F, et al. Carbonic anhydrase inhibitors: E7070, a sulfonamide anticancer agent, potently inhibits cytosolic isozymes I and II, and transmembrane, tumor-associated isozyme IX. Bioorg Med Chem Lett. 2004 Jan 5;14(1):217-23.

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