Indisulam

Cat. No.: HY-13650

CAS No.: 165668-41-7

Molecular Formula: $C_{14}H_{12}ClN_3O_4S_2$

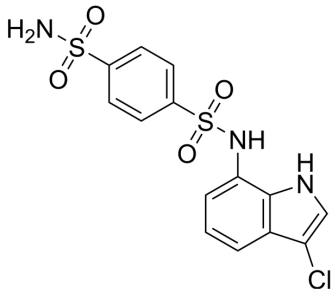
Molecular Weight: 385.85

Target: Carbonic Anhydrase; Molecular Glues

Pathway: Metabolic Enzyme/Protease; PROTAC

Storage:

Powder	-20°C	3 years
In solvent	-80°C	1 year
	-20°C	6 months



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (259.17 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / 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% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.17 mg/mL (5.62 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.17 mg/mL (5.62 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Indisulam (E 7070) is a carbonic anhydrase inhibitor with anticancer activity. Indisulam (E 7070) is a sulfonamide agent that targets the G1 phase of the cell cycle. Indisulam (E 7070) causes a blockade in the G1/S transition through inhibition of the activation of both CDK2 and cyclin E. Indisulam (E 7070) targets splicing by inducing RBM39 degradation via recruitment to DCAF15[1][2].

IC_{50} & Target

Carbonic anhydrase[1].

In Vitro

Indisulam (E7070, 0-50 μg/mL, 12-48 h) causes cell cycle perturbation in the G1 phase in a time- and dose-dependent

manner, potentially leading to cell death[1].

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

Cell Cycle Analysis[1]

Cell Line:	P388 murine leukaemia cells.
Concentration:	0-50 μg/mL.
Incubation Time:	12-48 h.
Result:	Accumulated P388 cells in the G1 phase.

In Vivo

Indisulam (E7070, 12.5, 25, 50 (100) mg/kg) shows an antitumour spectrum in human cancer models[1].

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

Animal Model:	Female BALB/c nu/nu mice aged 7 weeks (HCT116 colon, LX-1 lung, SW620 colon, HCT115 colon, PC-9 lung, DLD-1 colon and WiDr colon models)[1].
Dosage:	12.5, 25, 50 (100) mg/kg.
Administration:	IV daily for 4 days.
Result:	Exhibited anti-tumor activity.

CUSTOMER VALIDATION

- Nat Chem Biol. 2023 Aug 31.
- J Exp Clin Cancer Res. 2023 Aug 21;42(1):214.
- Bioorgan Med Chem. 2020 Oct 15;28(20):115712.
- University of Munich. Fakultät für Medizin. 2022 Oct.

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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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