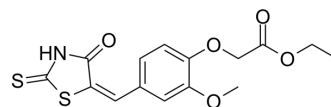


IMR-1

Cat. No.:	HY-100431		
CAS No.:	310456-65-6		
Molecular Formula:	C ₁₅ H ₁₅ NO ₅ S ₂		
Molecular Weight:	353.41		
Target:	Notch		
Pathway:	Neuronal Signaling; Stem Cell/Wnt		
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 (282.96 mM)
 * "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.8296 mL	14.1479 mL	28.2957 mL
	5 mM	0.5659 mL	2.8296 mL	5.6591 mL
	10 mM	0.2830 mL	1.4148 mL	2.8296 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 2.5 mg/mL (7.07 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: 2.5 mg/mL (7.07 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (7.07 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

IMR-1 is a novel class of Notch inhibitor targeting the transcriptional activation with an IC₅₀ of 26 μM. IMR-1 prevents the recruitment of Mastermind-like 1 (Maml1) to the Notch Ternary Complex (NTC) on chromatin, inhibits Notch target gene transcription and dramatically inhibits tumor growth^[1].

IC₅₀ & Target

IC₅₀: 26 μM (Notch)^[1]

In Vivo

IMR-1 (i.p.; 15mg/kg; for 28 days) inhibits Notch-dependent tumor growth in patient-derived xenograft models^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Nude mice with adenocarcinoma xenograft ^[1]
Dosage:	15mg/kg
Administration:	I.p.; for 28 days
Result:	Blocks tumor establishment.

CUSTOMER VALIDATION

- Int J Biol Sci. 2020 Jan 1;16(4):598-610.
- Cell Chem Biol. 2022 Jun 9;S2451-9456(22)00204-5.
- Oncogene. 2023 Jul 11.
- JCI Insight. 2022 Dec 8;7(23):e162402.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Astudillo L et al. The Small Molecule IMR-1 Inhibits the Notch Transcriptional Activation Complex to Suppress Tumorigenesis. Cancer Res. 2016 Jun 15;76(12):3593-603.

Caution: Product has not been fully validated for medical applications. For research use only.

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