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Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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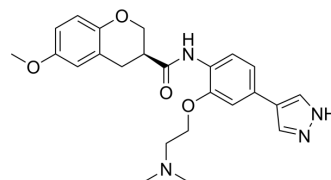
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Chroman 1

Cat. No.:	HY-15392		
CAS No.:	1273579-40-0		
Molecular Formula:	C ₂₄ H ₂₈ N ₄ O ₄		
Molecular Weight:	436.5		
Target:	ROCK		
Pathway:	Cell Cycle/DNA Damage; Cytoskeleton; Stem Cell/Wnt; TGF-beta/Smad		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	1 year
		-20°C	6 months



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 50 mg/mL (114.55 mM)
 * "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		2.2910 mL	11.4548 mL	22.9095 mL
	5 mM		0.4582 mL	2.2910 mL	4.5819 mL
	10 mM		0.2291 mL	1.1455 mL	2.2910 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 3.25 mg/mL (7.45 mM); Clear solution
- Add each solvent one by one: 5% DMSO >> 40% PEG300 >> 5% Tween-80 >> 50% saline
 Solubility: 2.5 mg/mL (5.73 mM); Suspended solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Chroman 1 is a highly potent and selective ROCK inhibitor. Chroman 1 is more potent against ROCK2 (IC₅₀=1 pM) than ROCK1 (IC₅₀=52 pM). Chroman 1 also has inhibitory activity against MRCK, with an IC₅₀ of 150 nM^{[1][2]}.

IC₅₀ & Target

ROCK2 1 pM (IC ₅₀)	ROCK1 52 pM (IC ₅₀)	MRCK 150 nM (IC ₅₀)
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In Vitro

Chroman 1 (50 nM, 24 h) inhibits caspase-3/7 activation and reduces apoptosis in human pluripotent stem cells^[1].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.
 Apoptosis Analysis^[1]

Cell Line:	hESCs (human pluripotent stem cells) (WA09)
Concentration:	50 nM
Incubation Time:	0-12 h or 24 h
Result:	Reduced the number of apoptotic cells, reduced caspase-3/7 activation.
Western Blot Analysis ^[1]	
Cell Line:	hESCs (human pluripotent stem cells) (WA09)
Concentration:	50 nM
Incubation Time:	24 h
Result:	Partially inhibited caspase-3 activation.

CUSTOMER VALIDATION

- Nature. 2024 Feb;626(8000):874-880.
- Nat Methods. 2021 May;18(5):528-541.
- Mol Cell. 2023 Jun 24;S1097-2765(23)00430-6.
- Nat Protoc. 2022 Oct 19.
- Cell Rep. 2023 Aug 30;42(9):113046.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. Yen Ting Chen, et al. Asymmetric synthesis of potent chroman-based Rho kinase (ROCK-II) inhibitors. Med.Chem.Commun., 2011, 2, 73-75.
- [2]. Yu Chen, et al. A Versatile Polypharmacology Platform Promotes Cytoprotection and Viability of Human Pluripotent and Differentiated Cells. bioRxiv 815761.

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

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