Chroman 1

ROCK inhibitor / Stem cell cytoprotectant

Chroman 1 is a highly potent and selective inhibitor of Rho-associated kinase 2 (ROCK2). It exhibits an IC50 value of less than 1 nM for ROCK2, making it significantly more potent against ROCK2 compared to ROCK1 (IC50 = 52 pM) and MRCKα (IC50 = 150 nM). This makes it a valuable tool for investigating cell signaling pathways, particularly those involving cytoskeletal dynamics and cell motility.

ROCK2 inhibitors like Chroman 1 are being explored for their potential therapeutic applications in diseases such as:

- **Cardiovascular Diseases:** Due to its role in vascular smooth muscle contraction and endothelial function.
- **Neurodegenerative Diseases:** Given its involvement in neuronal survival and axon regeneration.
- **Cancer:** For its potential to inhibit tumor cell invasion and metastasis

Key features and applications include:

- **Research Tool:** Used to study the role of ROCK2 in cellular processes due to its high potency (i.e., IC50 < 1 nM for ROCK2) and selectivity (i.e., greater selectivity for ROCK2 over other kinases like PKA and MRCKα).
- **Cell Signaling Pathways:** Investigates pathways involving cytoskeletal dynamics and cell motility.

Ordering Information

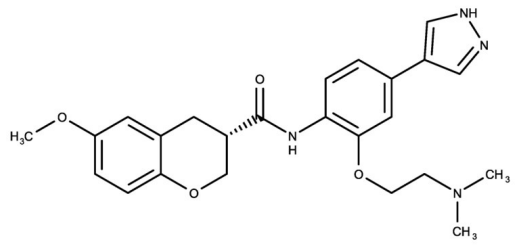
Order Online »

ENZ-CHM347-0005	5mg

Manuals, SDS & CofA

View Online »

- GMP format available


NH
N
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H3C
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CH3
CH3

Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended. Solutions in DMSO may be stored at -20°C for up to 2 months.
Handling	Keep container tightly closed in a dry and well-ventilated place.
Short Term Storage	-20°C
Long Term Storage	-20°C
Shipping	Ambient Temperature

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	(3S)-N-[2,[2-(Dimethylamino)ethoxy)-4-(1H-pyrazol-4-yl)phenyl]-6-methoxy-3,4-dihydro-2H-chromen-3-carboxamide
Appearance	White solid.
CAS	1273579-40-0
Couple Target	ROCK
Couple Type	Inhibitor
Formula	$C_{24}H_{28}N_4O_4$
Identity	Determined by NMR.
MW	436.51
Purity	≥99% HPLC
Solubility	Soluble in DMSO (at least 50 mg/ml).

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