# **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 MRCK $\alpha$  (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**

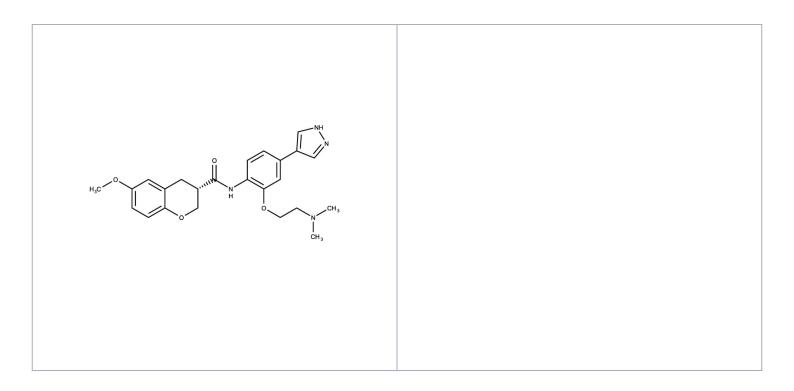
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**ENZ-CHM347-0005** 5mg

Manuals, SDS & CofA

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· GMP format available



### **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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