

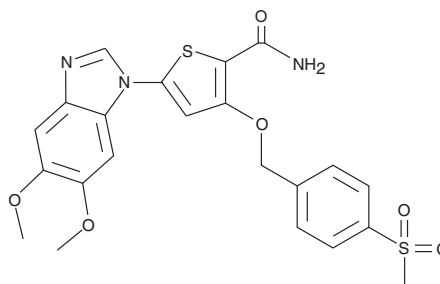
Product Information



CAY10575

Catalog No. 10011248

CAS Registry No.: 916985-21-2
Formal Name: 5-(5,6-dimethoxy-1H-benzimidazol-1-yl)-3-[[4-(methylsulfonyl)phenyl]methoxy]-2-thiophenecarboxamide
MF: C₂₂H₂₁N₃O₆S₂
FW: 487.6
Purity: ≥95%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that CAY10575 be stored as supplied at -20°C. It should be stable for at least two years.

CAY10575 is supplied as a crystalline solid. A stock solution may be made by dissolving the CAY10575 in an organic solvent purged with an inert gas. CAY10575 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of CAY10575 in these solvents is approximately 10 and 1 mg/ml, respectively.

CAY10575 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CAY10575 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. CAY10575 has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

The NF-κB/Rel transcription factors, known to be involved in the regulation of pro-inflammatory cytokines and the pathogenesis of a variety of diseases, are present in the cytosol in an inactive state, complexed with inhibitory IκB proteins. NF-κB is activated upon degradation of IκB following IKK-α and IKK-β phosphorylation. IKK-ε, a homolog of IKK-α and IKK-β, can also activate NF-κB. IKK-ε is expressed predominantly in immune cells and is thought to play a role in the immune response. CAY10575 is a benzimidazole analog that inhibits IKK-ε with an IC₅₀ value of ~15.8 μM.¹

Reference

1. Bamborough, P., Christopher, J.A., Cutler, G.J., *et al.* 5-(1H-benzimidazol-1-yl)-3-alkoxy-2-thiophenecarbonitriles as potent, selective, inhibitors of IKK-ε kinase. *Bioorganic & Medicinal Chemistry Letters* **16**, 6236-6240 (2006).

Related Products

Phenethyl Caffiate - Cat. No. 70750 • CAY10470 - Cat. No. 10006734 • NF-κB (human p50) Transcription Factor Assay Kit - Cat. No. 10006912 • NF-κB (p65) Transcription Factor Assay Kit - Cat. No. 10007889 • NF-κB (human p50/p65) Combo Transcription Factor Assay Kit - Cat. No. 10011223 • CAY10576 - Cat. No. 10011249

WARNING: THIS PRODUCT IS NOT FOR HUMAN OR ANIMAL DISEASE DIAGNOSIS OR THERAPEUTIC DRUG USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent under separate cover to the MSDS supervisor at your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will **meet our specifications at the time of delivery.**

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

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Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.

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