

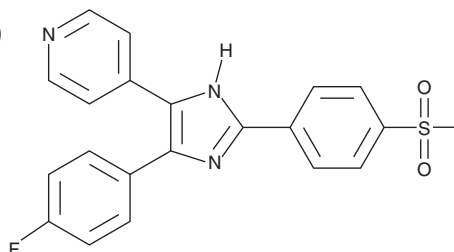
PRODUCT INFORMATION



CAY10571

Item No. 10010400

CAS Registry No.: 152121-46-5
Formal Name: 4-[5-(4-fluorophenyl)-2-[4-(methylsulfonyl)phenyl]-1H-imidazol-4-yl]-pyridine
MF: C₂₁H₁₆FN₃O₂S
FW: 393.4
Purity: ≥95%
UV/Vis.: λ_{max}: 230, 323 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

CAY10571 is supplied as a crystalline solid. A stock solution may be made by dissolving the CAY10571 in the solvent of choice, which should be purged with an inert gas. CAY10571 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of CAY10571 in these solvents is approximately 30 and 50 mg/ml, respectively.

CAY10571 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CAY10571 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. CAY10571 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Pyridinylimidazoles, often termed CSAIDs, are a class of anti-inflammatory compounds that inhibit eicosanoid production and suppress the synthesis of cytokines in human monocytes.¹ Because of its high specificity, one predominant pyridinylimidazole, SB203580, is frequently used to inhibit p38 MAPK, the tyrosine kinase activated by environmental stresses and inflammatory cytokines.² CAY10571 is an analog of SB203580. It inhibits IL-1 production in the human monocytic cell line THP with an IC₅₀ value of 0.20 μM and binds CSAID binding protein, a serine/threonine kinase homologous to p38, inhibiting its kinase activity with an IC₅₀ value of 0.03 μM.^{3,4} CAY105571 also inhibits 5-lipoxygenase production in RBL-1 cells with an IC₅₀ value of 24 μM.³

References

1. Lee, J.C., Laydon, J.T., McDonnell, P.C., *et al.* A protein kinase involved in the regulation of inflammatory cytokine biosynthesis. *Nature* **372(6508)**, 739-746 (1994).
2. Cuenda, A., Rouse, J., Doza, Y.N., *et al.* SB 203580 is a specific inhibitor of a MAP kinase homologue which is stimulated by cellular stresses and interleukin-1. *FEBS Lett.* **364(2)**, 229-233 (1995).
3. Gallagher, T.F., Fier-Thompson, S.M., Garigipati, R.S., *et al.* 2,4,5-triarylimidazole inhibitors of IL-1 biosynthesis. *Bioorg. Med. Chem. Lett.* **5(11)**, 1171-1176 (1995).
4. Gallagher, T.F., Seibel, G.L., Kassis, S., *et al.* Regulation of stress-induced cytokine production by pyridinylimidazoles; Inhibition of CSBP kinase. *Bioorg. Med. Chem.* **5(1)**, 49-64 (1997).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 01/29/2024

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM