

PRODUCT INFORMATION



WH-4-023

Item No. 9002067

CAS Registry No.: 837422-57-8
Formal Name: N-(2,4-dimethoxyphenyl)-N-[2-[[4-(4-methyl-1-piperazinyl)phenyl]amino]-4-pyrimidinyl]-carbamic acid, 2,6-dimethylphenyl ester

MF: C₃₂H₃₆N₆O₄

FW: 568.7

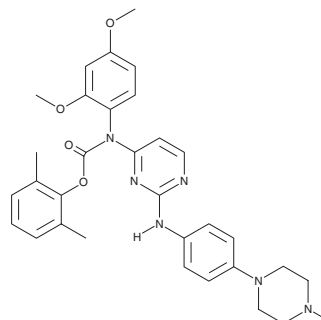
Purity: ≥98%

UV/Vis.: λ_{max}: 284 nm

Supplied as: A crystalline solid

Storage: -20°C

Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly



Laboratory Procedures

WH-4-023 is supplied as a crystalline solid. A stock solution may be made by dissolving the WH-4-023 in the solvent of choice. WH-4-023 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of WH-4-023 in these solvents is approximately 0.3, 20, and 25 mg/ml, respectively.

WH-4-023 is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

WH-4-023 is a selective inhibitor of the Src family of non-receptor tyrosine kinases (IC₅₀s = 2 and 6 nM for Lck and Src, respectively).^{1,2} It inhibits the related kinases p38α and KDR at >300-fold higher concentrations (IC₅₀s = 1.3 and 0.65 μM, respectively).¹ At 1 μM, it has been used in combination with PD 0325901 (Item No. 13034), CHIR99021 (Item No. 13122), and SB-590885 (Item No. 16643) to support self-renewal of naïve human embryonic stem cells.³

References

1. Martin, M. W., Newcomb, J., Nunes, J. J., *et al.* Novel 2-aminopyrimidine carbamates as potent and orally active inhibitors of Lck: Synthesis, SAR, and *in vivo* antiinflammatory activity. *J. Med. Chem.* **49**(16), 4981-4991 (2006).
2. Moroco, J. A., Baumgartner, M. P., Rust, H. L., *et al.* A discovery strategy for selective inhibitors of c-Src in complex with the focal adhesion kinase SH3/SH2-binding region. *Chem. Biol. Drug Des.* **86**(2), 144-155 (2015).
3. Theunissen, T. W., Powell, B. E., Wang, H., *et al.* Systematic identification of culture conditions for induction and maintenance of naïve human pluripotency. *Cell. Stem Cell* **15**(4), 471-487 (2014).

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.

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