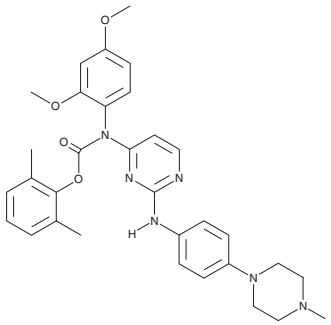
PRODUCT INFORMATION

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:	$C_{32}H_{36}N_6O_4$
FW:	568.7
Purity:	≥98%
UV/Vis.:	λ_{max}: 284 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

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 (IC_{50}s = 2 and 6 nM for Lck and Src, respectively).[1,2] It inhibits the related kinases p38α and KDR at >300-fold higher concentrations (IC_{50}s = 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 naive human pluripotency. *Cell. Stem Cell* **15(4)**, 471-487 (2014).

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