

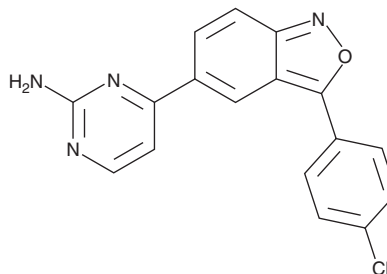
PRODUCT INFORMATION



Pim-1 Inhibitor 2

Item No. 17809

CAS Registry No.: 477845-12-8
Formal Name: 4-[3-(4-chlorophenyl)-2,1-benzisoxazol-5-yl]-2,1-pyrimidinamine
Synonym: PIMi II
MF: C₁₇H₁₁ClN₄O
FW: 322.8
Purity: ≥98%
UV/Vis.: λ_{max}: 225, 256, 375 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

Pim-1 inhibitor 2 is supplied as a crystalline solid. A stock solution may be made by dissolving the Pim-1 inhibitor 2 in the solvent of choice. Pim-1 inhibitor 2 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of Pim-1 inhibitor 2 in ethanol is approximately 10 mg/ml and approximately 20 mg/ml in DMSO and DMF.

Pim-1 inhibitor 2 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, Pim-1 inhibitor 2 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Pim-1 inhibitor 2 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Pim-1 is a serine/threonine kinase that targets proteins involved in cell survival and proliferation and has roles in tumorigenesis.^{1,2} Pim-1 inhibitor 2 is a potent Pim-1 inhibitor (K_i = 91 nM) that targets the ATP-binding kinase hinge region.³⁻⁵

References

1. Beharry, Z., Mahajan, S., Zemskova, M., *et al.* The Pim protein kinases regulate energy metabolism and cell growth. *Proc. Natl. Acad. Sci. USA* **108**(2), 528-533 (2011).
2. Chen, J., Kobayashi, M., Darmanin, S., *et al.* Pim-1 plays a pivotal role in hypoxia-induced chemoresistance. *Oncogene* **28**(28), 2581-2592 (2009).
3. Pierce, A.C., Jacobs, M., and Stuver-Moody, C. Docking study yields four novel inhibitors of the protooncogene Pim-1 kinase. *J. Med. Chem.* **51**(6), 1972-1975 (2008).
4. Duverger, A., Wolschendorf, F., Anderson, J.C., *et al.* Kinase control of latent HIV-1 infection: PIM-1 kinase as a major contributor to HIV-1 reactivation. *J. Virol.* **88**(1), 364-376 (2014).
5. Brault, L., Gasser, C., Bracher, F., *et al.* PIM serine/threonine kinases in the pathogenesis and therapy of hematologic malignancies and solid cancers. *Haematologica* **95**(6), 1004-1015 (2010).

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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