

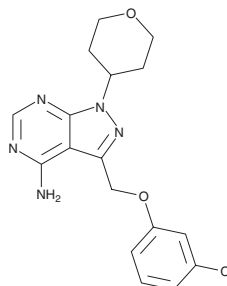
PRODUCT INFORMATION



PF-4800567

Item No. 19171

CAS Registry No.: 1188296-52-7
Formal Name: 3-[(3-chlorophenoxy)methyl]-1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazolo[3,4-d]pyrimidin-4-amine
MF: C₁₇H₁₈ClN₅O₂
FW: 359.8
Purity: ≥98%
UV/Vis.: λ_{max}: 273 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

PF-4800567 is supplied as a crystalline solid. A stock solution may be made by dissolving the PF-4800567 in the solvent of choice, which should be purged with an inert gas. PF-4800567 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of PF-4800567 in these solvents is approximately 1, 10, and 25 mg/ml, respectively.

PF-4800567 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, PF-4800567 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. PF-4800567 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

PF-4800567 is a selective inhibitor of casein kinase 1ε (CK1ε; IC₅₀ = 32 nM) with greater than 20-fold selectivity over CK1δ.¹ It blocks CK1ε-mediated PER3 nuclear localization and PER2 degradation, both of which are proteins important for maintaining circadian rhythms in cells.¹ PF-4800567 has been used in the study of the CK1 enzymes in the regulation of circadian rhythm and is also reported to have neuroprotective effects.¹⁻³

References

- Walton, K.M., Fisher, K., Rubitski, D., *et al.* Selective inhibition of casein kinase 1ε minimally alters circadian clock period. *J. Pharmacol. Exp. Ther.* **330(2)**, 430-439 (2009).
- Meng, Q.-J., Maywood, E.S., Bechtold, D.A., *et al.* Entrainment of disrupted circadian behavior through inhibition of casein kinase 1 (CK1) enzymes. *Proc. Natl. Acad. Sci. USA* **107(34)**, 15240-15245 (2016).
- Perez, D.I., Gil, C., and Martinez, A. Protein kinases CK1 and CK2 as new targets for neurodegenerative diseases. *Med. Res. Rev.* **31(6)**, 924-954 (2011).

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

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