

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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# **Product Information**



## BX-912

Item No. 14708

CAS Registry No.: 702674-56-4

Formal Name: N-[3-[[5-bromo-4-[[2-(1H-imidazol-5-

yl)ethyl]amino]-2-pyrimidinyl]amino]

phenyl]-1-pyrrolidinecarboxamide

MF: C<sub>20</sub>H<sub>23</sub>BrN<sub>8</sub>O

FW: 471.4 **Purity:** ≥98%

Stability: ≥2 years at -20°C Supplied as: A crystalline solid UV/Vis.:  $\lambda_{\text{max}}$ : 238, 274 nm

## **Laboratory Procedures**

For long term storage, we suggest that BX-912 be stored as supplied at -20°C. It should be stable for at least two years. BX-912 is supplied as a crystalline solid. A stock solution may be made by dissolving the BX-912 in the solvent of choice. BX-912 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of BX-912 in ethanol and DMSO is approximately 5 mg/ml and approximately 12 mg/ml in DMF.

BX-912 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, BX-912 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. BX-912 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.

3-Phosphoinositide-dependent protein kinase 1 (PDK1) is a serine-threonine kinase that phosphorylates and activates a range of other kinases, including protein kinase (PK)B, PKA, and certain isoforms of PKC. BX-912 is a potent, ATPcompetitive inhibitor of PDK1 (IC<sub>50</sub> = 26 nM).<sup>2</sup> It less effectively inhibits a panel of related serine-threonine kinases.<sup>2</sup> BX-912 has been used to evaluate the role of PDK1 in kinase activation and cell survival.<sup>3-5</sup>

## References

- 1. Peifer, C. and Alessi, D.R. Small-molecule inhibitors of PDK1. ChemMedChem 3(12), 1810-1838 (2008).
- Feldman, R.I., Wu, J.M., Polokoff, M.A., et al. Novel small molecule inhibitors of 3-phosphoinositide-dependent kinase-1. J. Biol. Chem. 280(20), 19867-19874 (2005).
- Kloo, B., Nagel, D., Pfeifer, M., et al. Critical role of PI3K signaling for NF-κB-dependent survival in a subset of activated B-cell-like diffuse large B-cell lymphoma cells. Proc. Natl. Acad. Sci. USA 108(1), 272-277 (2011).
- Mashukova, A., Forteza, R., Wald, F.A., et al. PDK1 in apical signaling endosomes participates in the rescue of the polarity complex atypical PKC by intermediate filaments in intestinal epithelia. Mol. Biol. Cell 23(9), 1664-1674
- 5. Shibata, E., Kanno, T., Tsuchiya, A., et al. Free fatty acids inhibit protein tyrosine phosphatase 1B and activate Akt. Cell Physiol. Biochem. 32(4), 871-879 (2013).

### Related Products

For a list of related products please visit: www.caymanchem.com/catalog/14708

WARNING: This product is for laboratory research only: not for administration to humans. Not for human or veterinary DIAGNOSTIC OR THERAPEUTIC USE.

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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