

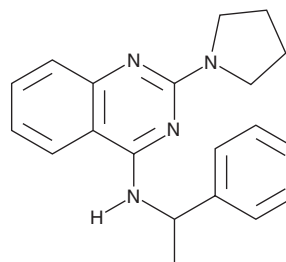
# PRODUCT INFORMATION



## Importazole

Item No. 21491

**CAS Registry No.:** 662163-81-7  
**Formal Name:** N-(1-phenylethyl)-2-(1-pyrrolidiny)-4-quinazolinamine  
**Synonym:** IPZ  
**MF:** C<sub>20</sub>H<sub>22</sub>N<sub>4</sub>  
**FW:** 318.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 242, 338 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

Importazole is supplied as a crystalline solid. A stock solution may be made by dissolving the importazole in the solvent of choice, which should be purged with an inert gas. Importazole is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of importazole in ethanol is approximately 5 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Importazole is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, importazole should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Importazole has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Importazole is a cell-permeable inhibitor of importin-β, which transports cargo molecules bearing a nuclear localization signal into the nucleus.<sup>1</sup> Importazole prevents nuclear import of GFP-tagged nuclear factor of activated T cells (NFAT-GFP) in HEK293 cells (IC<sub>50</sub> = 15 μM), which is reversible upon importazole washout.<sup>1</sup> Importazole does not interfere with transportin-mediated nuclear import or chromosomal maintenance 1 (CRM1)-mediated nuclear export.<sup>1</sup> Importazole inhibits nuclear import of topoisomerase IIβ binding protein 1 (TopBP1) in *Xenopus* egg extracts and of NF-κB in multiple myeloma cells.<sup>2,3</sup> It also induces defects in spindle and microtubule formation *in vitro*.<sup>4</sup>

### References

1. Soderholm, J.F., Bird, S.L., Kalab, P., *et al.* Importazole, a small molecule inhibitor of the transport receptor importin-β. *ACS Chem Biol.* **6**(7), 700-708 (2011).
2. Bai, L., Michael, W.M., and Yan, S. Importin β-dependent nuclear import of TopBP1 in ATR-Chk1 checkpoint in *Xenopus* egg extracts. *Cell. Signal.* **26**(5), 857-867 (2015).
3. Yan, W.Q., Du, J., Jiang, H., *et al.* Effect of nuclear receptor inhibitor importazole on the proliferation and apoptosis of multiple myeloma cells. *Zhonghua Xue Ye Xue Za Zhi* **34**(4), 323-326 (2013).
4. Bird, S.L., and Weis, K. RanGTP and CLASP1 cooperate to position the mitotic spindle. *Mol. Biol. Cell* **24**(16), 2506-2514 (2013).

#### 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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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM