

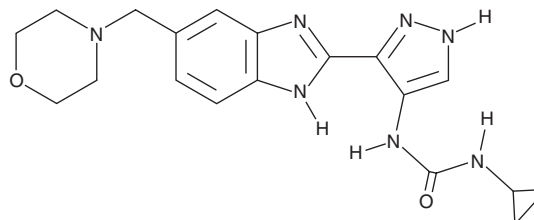
PRODUCT INFORMATION



AT-9283

Item No. 11496

CAS Registry No.: 896466-04-9
Formal Name: N-cyclopropyl-N'-[3-[6-(4-morpholinylmethyl)-1H-benzimidazol-2-yl]-1H-pyrazol-4-yl]-urea
MF: C₁₉H₂₃N₇O₂
FW: 381.4
Purity: ≥98%
UV/Vis.: λ_{max}: 214, 266, 306, 318 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

AT-9283 is supplied as a crystalline solid. A stock solution may be made by dissolving the AT-9283 in the solvent of choice, which should be purged with an inert gas. AT-9283 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of AT-9283 in ethanol is approximately 10 mg/ml and approximately 30 mg/ml in DMSO and DMF.

AT-9283 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, AT-9283 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. AT-9283 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

AT-9283 is a broad spectrum kinase inhibitor that potently inhibits Aurora A, Aurora B, JAK2, JAK3, and c-ABL (IC₅₀s = 3, 3, 1.2, 1.1, and 4 nM, respectively).¹ It also potently (IC₅₀ = <1 μM) inhibits many other kinases, including serine/threonine kinases as well as receptor and non-receptor tyrosine kinases.¹ As Aurora kinases have roles in mitosis, inhibitors of these kinases, including AT-9283, have potential in cancer therapy.² Consistent with this, AT-9283 is effective in preventing proliferation of cancer cells both *in vitro* and *in vivo* and this effect may be enhanced by combination therapy with other chemotherapeutics.^{3,4}

References

- Howard, S., Berdini, V., Boulstridge, J.A., *et al.* Fragment-based discovery of the pyrazol-4-yl urea (AT9283), a multitargeted kinase inhibitor with potent aurora kinase activity. *J. Med. Chem.* **52(2)**, 379-388 (2009).
- Curry, J., Angove, H., Fazal, L., *et al.* Aurora B kinase inhibition in mitosis: Strategies for optimising the use of aurora kinase inhibitors such as AT9283. *Cell Cycle* **8(12)**, 1921-1929 (2009).
- Qi, W., Liu, X., Cooke, L.S., *et al.* AT9283, a novel aurora kinase inhibitor, suppresses tumor growth in aggressive B-cell lymphomas. *Int. J. Cancer* **130(12)**, 2997-3005 (2012).
- Santo, L., Hideshima, T., Cirstea, D., *et al.* Antimyeloma activity of a multitargeted kinase inhibitor, AT9283, via potent Aurora kinase and STAT3 inhibition either alone or in combination with lenalidomide. *Clin. Cancer Res.* **17(10)**, 3259-3271 (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.

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