

# PRODUCT INFORMATION



**AZ 3146**

Item No. 19991

**CAS Registry No.:** 1124329-14-1

**Formal Name:** 9-cyclopentyl-7,9-dihydro-2-[[2-methoxy-4-[(1-methyl-4-piperidinyl)oxy]phenyl]amino]-7-methyl-8H-purin-8-one

**Synonym:** Mps1 Inhibitor III

**MF:** C<sub>24</sub>H<sub>32</sub>N<sub>6</sub>O<sub>3</sub>

**FW:** 452.6

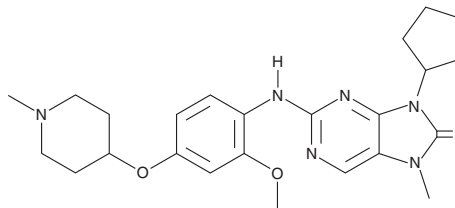
**Purity:** ≥98%

**UV/Vis.:** λ<sub>max</sub>: 276, 302 nm

**Supplied as:** A crystalline solid

**Storage:** -20°C

**Stability:** As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly



## Laboratory Procedures

AZ 3146 is supplied as a crystalline solid. A stock solution may be made by dissolving the AZ 3146 in the solvent of choice. AZ 3146 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of AZ 3146 in these solvents is approximately 2, 0.3, and 5 mg/ml, respectively.

AZ 3146 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, AZ 3146 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. AZ 3146 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

AZ 3146 is an inhibitor of the monopolar spindle 1 (Mps1) checkpoint kinase (IC<sub>50</sub> = 35 nM).<sup>1</sup> It displays selectivity over 46 other kinases including Cdk1 and Aurora kinase B.<sup>1</sup> It has been shown to inhibit the recruitment of Mad1, Mad2, and centromere protein E (CENP-E) to kinetochores.<sup>1</sup> AZ 3146 can be used with GSK923295 (Item No. 18389), an inhibitor of CENP-E, to generate aneuploidy in cells.<sup>2</sup>

## References

1. Lan, W. and Cleveland, D.W. A chemical tool box defines mitotic and interphase roles for Mps1 kinase. *J. Cell. Biol.* **190**(1), 21-24 (2010).
2. Bennett, A., Bechi, B., Tighe, A., *et al.* Cenp-E inhibitor GSK923295: Novel synthetic route and use as a tool to generate aneuploidy. *Oncotarget* **6**(25), 20921-20932 (2015).

### 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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