

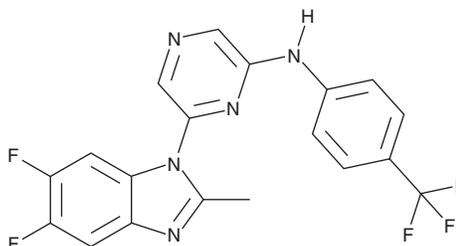
# PRODUCT INFORMATION



## PTC-028

Item No. 34471

**CAS Registry No.:** 1782970-28-8  
**Formal Name:** 6-(5,6-difluoro-2-methyl-1H-benzimidazol-1-yl)-N-[4-(trifluoromethyl)phenyl]-2-pyrazinamine  
**MF:** C<sub>19</sub>H<sub>12</sub>F<sub>5</sub>N<sub>5</sub>  
**FW:** 405.3  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 280, 350 nm  
**Supplied as:** A 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

PTC-028 is supplied as a solid. A stock solution may be made by dissolving the PTC-028 in the solvent of choice, which should be purged with an inert gas. PTC-028 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of PTC-028 in these solvents is approximately 1 and 20 mg/ml, respectively.

### Description

PTC-028 is an inhibitor of B cell-specific Moloney murine leukemia virus integration site 1 (BMI1), which is a member of the polycomb repressive complex 1 (PRC1) that has a role in gene silencing.<sup>1</sup> It inhibits proliferation of OVCAR-4 and OV-90 ovarian cancer cells (IC<sub>50</sub>s = ~0.1 μM for both). It also induces BMI1 degradation in, and apoptosis of, the same cells in a concentration-dependent manner. PTC-028 reduces microtubule polymerization and induces cell cycle arrest at the G<sub>2</sub>/M phase in MDS-L myelodysplastic syndrome cells when used at concentrations of 3 and 0.03 μM, respectively.<sup>2</sup> It reduces tumor growth in a OV-90 orthotopic mouse model of ovarian cancer when administered biweekly at a dose of 15 mg/kg.<sup>1</sup>

### References

1. Dey, A., Xiong, X., Crim, A., *et al.* Evaluating the mechanism and therapeutic potential of PTC-028, a novel inhibitor of BMI-1 function in ovarian cancer. *Mol. Cancer Ther.* **17**(1), 39-49 (2018).
2. Zhong, C., Kayamori, K., Koide, S., *et al.* Efficacy of the novel tubulin polymerization inhibitor PTC-028 for myelodysplastic syndrome. *Cancer Sci.* **111**(12), 4336-4347 (2020).

#### 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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