

# PRODUCT INFORMATION

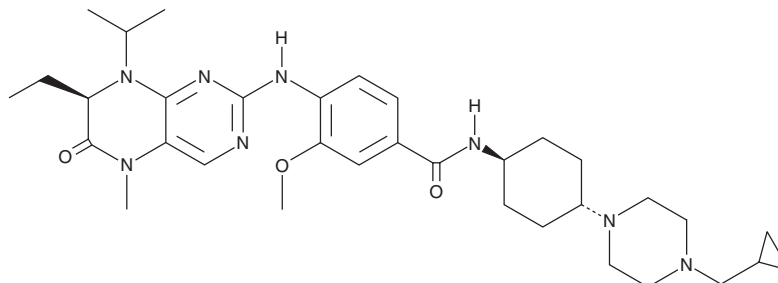


**BI-6727**

Item No. 18193

**CAS Registry No.:** 755038-65-4  
**Formal Name:** N-[*trans*-4-[4-(cyclopropylmethyl)-1-piperazinyl]cyclohexyl]-4-[[[(7R)-7-ethyl-5,6,7,8-tetrahydro-5-methyl-8-(1-methylethyl)-6-oxo-2-pteridinyl]amino]-3-methoxy-benzamide

**Synonym:** Volasertib  
**MF:** C<sub>34</sub>H<sub>50</sub>N<sub>8</sub>O<sub>3</sub>  
**FW:** 618.8  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 330 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

BI-6727 is supplied as a crystalline solid. A stock solution may be made by dissolving the BI-6727 in the solvent of choice, which should be purged with an inert gas. BI-6727 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of BI-6727 in these solvents is approximately 30 mg/ml.

BI-6727 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, BI-6727 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. BI-6727 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

## Description

Polo-like kinases (Plks) are serine/threonine kinases with key roles in cell cycling.<sup>1</sup> BI-6727 is a dihydropteridinone that inhibits Plk1, Plk2, and Plk3 (IC<sub>50</sub>s = 0.87, 5, and 56 nM, respectively), inducing mitotic arrest and apoptosis.<sup>2</sup> It inhibits proliferation of multiple cancer cell lines with EC<sub>50</sub> values ranging from 11-37 nM and prevents the growth of various human carcinoma xenografts in mice.<sup>2</sup> BI-6727 was found to reverse ABC-efflux transporter-mediated multidrug resistance activity through its inhibition of the transport activity of ABCB1 and ABCG2, thus promoting mitotic arrest in resistant cancer cells.<sup>3</sup>

## References

- Schöffski, P. Polo-like kinase (PLK) inhibitors in preclinical and early clinical development in oncology. *Oncologist* **14**(6), 559-570 (2009).
- Rudolph, D., Steegmaier, M., Hoffmann, M., *et al.* BI 6727, a Polo-like kinase inhibitor with improved pharmacokinetic profile and broad antitumor activity. *Clin. Cancer Res.* **15**(9), 3094-3102 (2009).
- To, K.K.W., Poon, D.C., Chen, X.G., *et al.* Volasertib (BI 6727), a novel polo-like kinase inhibitor reverses ABCB1 and ABCG2-mediated multidrug resistance in cancer cells. *J. Cancer Ther. Res.* **2**(13), 1-10 (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.

### WARRANTY AND LIMITATION OF REMEDY

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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