

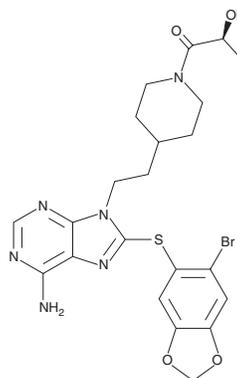
# PRODUCT INFORMATION



## MPC-3100

Item No. 22496

**CAS Registry No.:** 958025-66-6  
**Formal Name:** (2S)-1-[4-[2-[6-amino-8-[(6-bromo-1,3-benzodioxol-5-yl)thio]-9H-purin-9-yl]ethyl]-1-piperidinyl]-2-hydroxy-1-propanone  
**MF:** C<sub>22</sub>H<sub>25</sub>BrN<sub>6</sub>O<sub>4</sub>S  
**FW:** 549.4  
**Purity:** ≥95%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

MPC-3100 is supplied as a solid. A stock solution may be made by dissolving the MPC-3100 in the solvent of choice, which should be purged with an inert gas. MPC-3100 is soluble in the organic solvent DMSO.

### Description

MPC-3100 is an inhibitor of heat shock protein 90 (Hsp90; IC<sub>50</sub> = 0.14 μM in a fluorescence polarization assay).<sup>1</sup> It inhibits proliferation of a variety of cancer cell lines, including colon, prostate, ovarian, gastric, and breast cancer cells (IC<sub>50</sub>s = 0.2-0.55 μM), as well as MV4-11 leukemia, A549 non-small cell lung cancer (NSCLC), NCI H69 SCLC, and multidrug-resistant NCI/ADR-RES cells (IC<sub>50</sub>s = 0.25, 0.77, 0.15, and 4.3 μM, respectively). MPC-3100 induces degradation of the Hsp90 client proteins Akt and HER2 (IC<sub>50</sub>s = 0.1-0.5 μM) and a compensatory Hsp70 response in NCI N87, HCT116, and DU145 cell lysates. It also induces Hsp70 expression in the liver and tumor tissue and reduces tumor growth in an NCI N87 mouse xenograft model when administered at doses of 50 and 75 mg/kg. It induces tumor regression in the same model when administered at doses of 125 and 200 mg/kg.

### Reference

1. Kim, S.H., Bajji, A., Tangallapally, R., *et al.* Discovery of (2S)-1-[4-(2-[6-amino-8-[(6-bromo-1,3-benzodioxol-5-yl)sulfanyl]-9H-purin-9-yl]ethyl)piperidin-1-yl]-2-hydroxypropan-1-one (MPC-3100), a purine-based Hsp90 inhibitor. *J. Med. Chem.* **55**(17), 7480-7501 (2012).

#### 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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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