

# PRODUCT INFORMATION

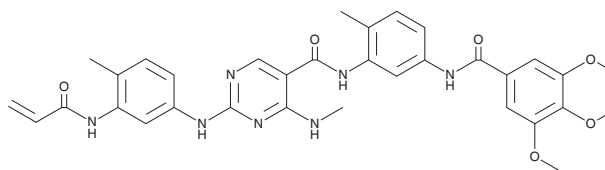


## CHMFL-BMX-078

Item No. 36828

**CAS Registry No.:** 1808288-51-8  
**Formal Name:** 4-(methylamino)-2-[[4-methyl-3-[(1-oxo-2-propen-1-yl)amino]phenyl]amino]-N-[2-methyl-5-[(3,4,5-trimethoxybenzoyl)amino]phenyl]-5-pyrimidinocarboxamide

**MF:** C<sub>33</sub>H<sub>35</sub>N<sub>7</sub>O<sub>6</sub>  
**FW:** 625.7  
**Purity:** ≥90%  
**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

CHMFL-BMX-078 is supplied as a solid. A stock solution may be made by dissolving the CHMFL-BMX-078 in the solvent of choice, which should be purged with an inert gas. CHMFL-BMX-078 is slightly soluble in DMSO.

### Description

CHMFL-BMX-078 is an irreversible inhibitor of bone marrow tyrosine kinase on chromosome X (BMX; IC<sub>50</sub> = 11 nM).<sup>1</sup> It selectively inhibits the growth of Ba/F3 cells expressing BMX over Ba/F3 cells expressing Abl, c-Kit, PDGFR $\alpha$ , or PDGFR $\beta$  (GI<sub>50</sub>s = 0.016, 2.56, 2.01, 0.67, and 0.91  $\mu$ M, respectively), as well as Ba/F3 cells expressing FLT3, EGFR, JAK3, or Blk (GI<sub>50</sub>s = >10  $\mu$ M for all). CHMFL-BMX-078 inhibits the growth of 22Rv1, DU145, and PC3 prostate, Hb-c, J82, and T24 bladder, and ACHN renal cancer cells (GI<sub>50</sub>s = 3.45-7.89, 5.78-8.98, and 4.93  $\mu$ M, respectively). It restores cytotoxicity induced by vemurafenib (PLX4032; Item No. 10618) in vemurafenib-resistant A375 melanoma cells.<sup>2</sup> CHMFL-BMX-078 (15 mg/kg) reduces tumor weight and enhances vemurafenib-induced reduction of tumor weight in a vemurafenib-resistant A375 mouse xenograft model.

### References

- Liang, X., Lv, F., Wang, B., *et al.* Discovery of 2-((3-Acrylamido-4-methylphenyl)amino)-N-(2-methyl-5-(3,4,5-trimethoxybenzamido)phenyl)-4-(methylamino)pyrimidine-5-carboxamide (CHMFL-BMX-078) as a highly potent and selective type II irreversible bone marrow kinase in the X chromosome (BMX) kinase inhibitor. *J. Med. Chem.* **60**(5), 1793-1816 (2017).
- Jiang, S., Jiang, T., Huang, H., *et al.* CHMFL-BMX-078, a BMX inhibitor, overcomes the resistance of melanoma to vemurafenib via inhibiting AKT pathway. *Chem. Biol. Interact.* **351**, 109747 (2022).

#### 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.

Copyright Cayman Chemical Company, 12/21/2022

#### 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