

PRODUCT INFORMATION



BMX-IN-1

Item No. 19165

CAS Registry No.: 1431525-23-3

Formal Name: N-[2-methyl-5-[9-[4-[(methylsulfonyl)amino]phenyl]-2-oxobenzo[h]-1,6-naphthyridin-1(2H)-yl]phenyl]-2-propenamide

Synonym: BMX Inhibitor 1

MF: $C_{29}H_{24}N_4O_4S$

FW: 524.6

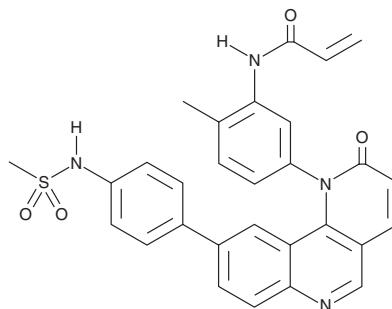
Purity: $\geq 95\%$

UV/Vis.: λ_{max} : 260, 298 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

BMX-IN-1 is supplied as a crystalline solid. A stock solution may be made by dissolving the BMX-IN-1 in the solvent of choice. BMX-IN-1 is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of BMX-IN-1 in these solvents is approximately 30 and 10 mg/ml, respectively.

BMX-IN-1 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, BMX-IN-1 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. BMX-IN-1 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

BMX-IN-1 is a selective, irreversible inhibitor of bone marrow tyrosine kinase on chromosome X (BMX; $IC_{50} = 8 \text{ nM}$) that targets Cys⁴⁹⁶ in the BMX ATP binding domain.¹ It additionally targets the related Bruton's tyrosine kinase (BTK) with an IC_{50} value of 10.4 nM, but is more than 47-656 fold less potent for inhibition of Blk, JAK3, EGFR, Itk, or Tec activity. BMX-IN-1 was shown to inhibit the proliferation of Tel-BMX-transformed Ba/F3 prostate cancer cells with a GI_{50} value of 25 nM.¹ Antiproliferative activity was also observed in RV-1, DU145, PC-3, and VCAP prostate cancer cell lines (GI_{50} s = 2.54, 4.38, 5.37, and 2.46 μM , respectively).¹

Reference

1. Liu, F., Zhang, X., Weisberg, E., *et al.* Discovery of a selective irreversible BMX inhibitor for prostate cancer. *ACS Chem. Biol.* **8**(7), 1423-1428 (2013).

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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