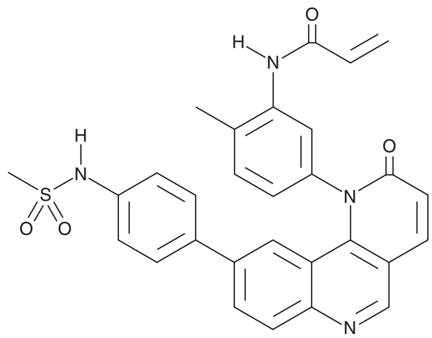
PRODUCT INFORMATION

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: ≥95%
UV/Vis.: λ_{max}: 260, 298 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

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, which should be purged with an inert gas. BMX-IN-1 is soluble in organic solvents such as DMSO and dimethyl formamide. 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 nM) that targets Cys^{496} 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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