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# Data Sheet

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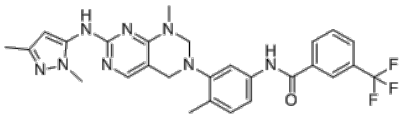
| **Product Name** | : | XMU-MP-3 |
| **Cat. No.** | : | PC-73045 |
| **CAS No.** | : | 2031152-08-4 |
| **Molecular Formula** | : | $C_{27}H_{27}F_3N_8O$ |
| **Molecular Weight** | : | 536.563 |
| **Target** | : | BTK |
| **Solubility** | : | 10 mM in DMSO |



## Biological Activity

XMU-MP-3 is a potent, selective, noncovalent **BTK** inhibitor with IC50 of 10.7 nM and 17.0 nM for BTK WT and BTK C481S mutation.
XMU-MP-3 inhibited BTK-transformed Ba/F3 cell proliferation with an IC50 of 11.4 nM, with negligible anti-proliferative effects on parental wild-type Ba/F3 cells (IC50>10 uM).
XMU-MP-3 inhibited both the autophosphorylation and trans-phosphorylation of BTK at residues Y223 and Y551, in a dose-dependent manner in BTK-transformed Ba/F3 cells at concentrations as low as 100 nM and completely suppressed at 1,000 nM.
XMU-MP-3 was considerably less potent (IC50, 2,815 nM) against proliferation of BTK(T474M)-transformed Ba/F3 cells.
XMU-MP-3 inhibits the growth of malignant B-cells, inhibited phosphorylation of PLCγ2 at Y1217 and Y759, substantially suppresses tumour growth in mouse xenograft models.
XMU-MP-3 maintained inhibitory potency with an IC50 of 182.3 nM against BTK(C481S)-Ba/F3 cells and with an IC50 of 17.0 nM in biochemical assays, suppressed ibrutinib-resistant BTKC481S mutation in vivo.

## References


Gui F, et al. ***Br J Pharmacol.*** 2019 Dec;176(23):4491-4509.

Wang H, et al. ***Hematol Oncol.*** 2021 Dec;39(5):605-615.


**Caution: Product has not been fully validated for medical applications. Lab Use Only!**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