

Product Data Sheet

Product Name: XMU-MP-8

Cat. No.: GC81030

Chemical Properties

Cas. No. 2271314-01-1

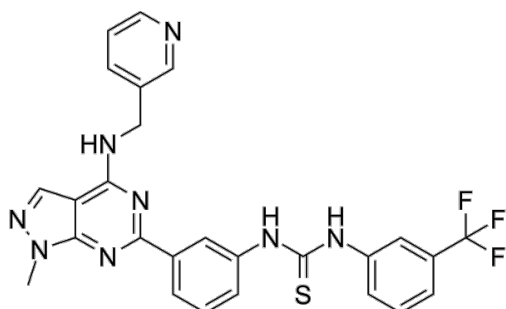
Formula $C_{26}H_{21}F_3N_8S$ M.Wt 534.56

Solubility DMSO: 116.67 mg/mL (218.25 mM; Storage Store at -20°C
Need ultrasonic)

General For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the tips ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution : ship with blue ice All other available size: ship with RT, or Condition blue ice upon request.

Structure



Background

XMU-MP-8 (SKPer1) is a potent molecular glue degrader that targets the oncoprotein SKP2. XMU-MP-8 simultaneously binds to the F-box domain of SKP2 ($K_d \approx 36 \mu M$) and the N-terminal TPR domain of the E3 ligase STUB1 ($K_d \approx 2.5 \mu M$), forming a stable SKP2-SKPer1-STUB1 ternary complex ($K_d \approx 8.9 nM$) that induces SKP2 ubiquitination and proteasomal degradation. XMU-MP-8 selectively eliminates SKP2-expressing cancer cells. XMU-MP-8 exhibits substantial tumour suppression with good safety profiles in vivo. XMU-MP-8 can be used for cancer research, such as

Caution: Product has not been fully validated for medical applications. For research use only.

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non-small cell lung adenocarcinoma (NSCLC) and prostatic adenocarcinoma [1].

In Vivo, XMU-MP-8 (15 and 30 mg/kg, i.v., daily for 14 days) demonstrates potent antitumor efficacy in A549 and PC-3 xenograft mice models, mediated through SKP2 degradation[1]. XMU-MP-8 (30 mg/kg, i.v., daily for 14 days) shows no adverse effects in BALB/c nude mice[1].

In Vitro, XMU-MP-8 (10 μ M, 24 h) produces a cell survival phenotype specifically in the SKP2-F-C cell line, with no survival observed in other F-C cell lines, ruling out the possibility that it generally interferes with the activation of the F-C death protein[1]. XMU-MP-8 (1-10 μ M, 0-24 h) triggers SKP2 ubiquitination and proteasomal degradation, significantly reducing its half-life and depleting endogenous SKP2 protein without affecting its mRNA levels[1]. XMU-MP-8 (72 h) inhibits proliferation of SKP2-high cell lines with IC50s of 3.7 μ M (PC-3), 6.7 μ M (A549), 3.7 μ M (JHH-7), 6.2 μ M (SW620), 4.5 μ M (LoVo), 6.9 μ M (RKO), 5.6 μ M (Caco2) and 5.3 μ M (HeLa)[1]. XMU-MP-8 (10 μ M, 72 h) completely blocks proliferation and induces massive cell death of SKP2-high cell lines[1]. XMU-MP-8 (10 μ M, 24 h) induces the degradation of SKP2 protein and the accumulation of p27 protein in SKP2-high cell lines (JHH-7 and PC-3), with no significant changes in SKP2-low cell lines (IMR-90 and MCF-10A)[1]. XMU-MP-8 (2.5-10 μ M, 0-5 days) shows no significant effect on the growth of normal mouse intestine organoids and human peripheral blood mononuclear cells[1]. XMU-MP-8 (10 μ M, 2.5 h) induces SKP2 degradation by recruiting the E3 ligase STUB1 to the F-box domain of SKP2, forming a ternary complex that enhances the SKP2-STUB1 interaction by 122-fold and ultimately leads to SKP2 ubiquitination and degradation[1].

References:

[1]. Chu Y, et al. A rapid imaging-based screen for induced-proximity degraders identifies a potent degrader of oncoprotein SKP2. Nat Biotechnol. 2025 Sep 10.

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