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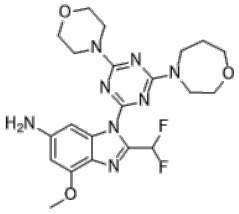
Data Sheet

Global Supplier of Chemical Probes, Inhibitors & Agonists.

Product Name	:	KTC1101
Cat. No.	:	PC-22175
CAS No.	:	2764833-47-6
Molecular Formula	:	$C_{21}H_{26}F_2N_8O_3$
Molecular Weight	:	476.49
Target	:	PI3K
Solubility	:	10 mM in DMSO



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Biological Activity

KTC1101 is a potent, selective **pan-PI3K** inhibitor with IC50 of 3.72 nM for PI3Kα, 36.29 nM for PI3Kβ, 1.22 nM for PI3Kδ, and 17.09 nM for PI3Kγ.
KTC1101 (1 uM) robustly inhibits all four PI3K targets with an inhibition rate greater than 90%, while maintaining an inhibition rate of less than 50% for a comprehensive panel of 50 kinases.
KTC1101 demonstrates broad-spectrum anti-proliferative activity across diverse tumor cell lines in vitro, displays superior inhibitory performance in TMD8 cells, when compared to both Copanlisib and ZSTK474.
KTC1101 exhibitsa mean GI50 value of 23.4 nM across a panel of 39 human tumor cell lines, significantly lower than that of ZSTK474 (320 nM) and Copanlisib (134 nM).
KTC1101 demonstrates favorable pharmacological properties and pronounced anti-tumor activity in mice.
KTC1101 has potential to activate tumor immunity through tumor-cell-intrinsic effects and direct T-cell modulation, synergizes with anti-PD-1 therapy.

References

Peng X, et al. ***Mol Cancer.*** 2024 Mar 14;23(1):54.

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