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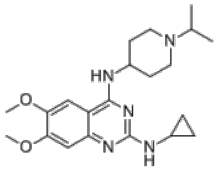
Data Sheet

Global Supplier of Chemical Probes, Inhibitors & Agonists.

Product Name	:	ZT-12-037-01
Cat. No.	:	PC-36062
CAS No.	:	2328073-61-4
Molecular Formula	:	$C_{21}H_{31}N_5O_2$
Molecular Weight	:	385.512
Target	:	Ras
Solubility	:	10 mM in DMSO



Biological Activity

ZT-12-037-01 is a potent, selective, ATP-competitive **STK19** inhibitor with IC50 of 20.04 nM measured as percentage of **NRAS** phosphorylation.
ZT-12-037-01 shows similar IC50 of 23.96 and 27.94 nM for STK19WTWT STK19D89N respectively.
ZT-12-037-01 displays extremely high kinase selectivity using KINOMEscan against a panel of 468 diverse kinases using an in vitro ATP-site competition binding assay at 1 uM.
ZT-12-037-01 efficiently inhibits phosphorylation of NRAS in a dose- and time-dependent manner, inhibits NRAS activity in a dose-dependent manner but does not affect the levels of H3K9 methylation.
ZT-12-037-01 effectively inhibits NRAS signaling, including the MEK-ERK and PI3K pathways in SK-MEL-2 and WM2032 cells (with NRASQ61R), but the inhibition was much less effective in A375 or UACC62 cells (with NRASWT), effectively inhibits cell growth and induces apoptosis of SK-MEL-2 and WM2032 melanoma cells.

References

Yin C, et al. ***Cell.*** 2019 Jan 24. pii: S0092-8674(19)30035-2. doi: 10.1016/j.cell.2019.01.002.

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