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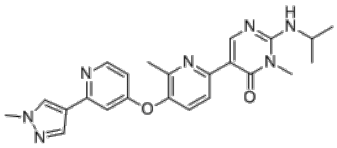
Data Sheet

Global Supplier of Chemical Probes, Inhibitors & Agonists.

Product Name	:	Vimseltinib
Cat. No.	:	PC-38376
CAS No.	:	1628606-05-2
Molecular Formula	:	$C_{23}H_{25}N_7O_2$
Molecular Weight	:	431.500
Target	:	c-Fms (CSF1R)
Solubility	:	10 mM in DMSO



Biological Activity

Vimseltinib (DCC-3014) is a potent, selective, orally active inhibitor of colony-stimulating factor 1 receptor (**CSF1R/c-Fms**), inhibits CSF1R phosphorylated juxtamembrane domain (JMD) with IC50 of 2.8 nM, 100-fold less potency against fully phosphorylated CSF1R (IC50=290 nM).
Vimseltinib (DCC-3014) exhibits approximately 20-fold weaker affinity for unphosphorylated CSF1R (Kd=79 nM) versus the JMD phosphorylated form (Kd=3.6 nM).
Vimseltinib (DCC-3014) displays high selectivity (>100-fold) for CSF1R kinase against a panel of approximately 300 human kinases.
Vimseltinib (DCC-3014) potently inhibited CSF1-stimulated phosphorylation of CSF1R in the human THP1 mononuclear cell line with IC50 of 19 nM, inhibited proliferation of M-NFS-60 cells with IC50 of 10.1 nM.
Vimseltinib (DCC-3014) inhibited CSF1R signaling in monocytes in human whole blood with an average IC50 of 403 nM, as measured the levels of phosphorylated ERK (downstream of CSF1R activation).
Vimseltinib (DCC-3014) inhibited tumor growth and bone degradation in mouse cancer models.

References

Smith BD, et al. ***Mol Cancer Ther***. 2021 Nov;20(11):2098-2109.

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