

Product Name	: JNJ-28312141
Synonyms	: JNJ28312141
Cat No.	: M16410
CAS Number	: 885692-52-4
Molecular Formula	: C ₂₆ H ₃₂ N ₆ O ₂
Formula Weight	: 460.57
Chemical Name	: 4-cyano-N-(5-(1-(2-(dimethylamino)acetyl)piperidin-4-yl)-2',3',4',5'-tetrahydro-[1,1'-biphenyl]-2-yl)-1H-imidazole-2-carboxamide
Description	JNJ-28312141 is a potent, orally active CSF-1 receptor (CSF-1R) kinase inhibitor with IC₅₀ of 0.69 nM; shows narrow kinase selectivity profile, also potently inhibits KIT (IC₅₀=5 nM), AXL (12 nM), TRKA (15 nM), FLT3 (30 nM), and LCK (88 nM); inhibits CSF-1-induced CSF-1R phosphorylation with IC₅₀ of 5 nM, inhibits CSF-1-dependent proliferation of mouse macrophages and CSF-1-induced expression of MCP-1 by human monocytes with IC₅₀ of 3 nM; inhibits the ITD-FLT3-dependent proliferation of MV-4-11 cells with IC₅₀ of 21 nM, inhibits FLT3 ligand-induced FLT3 phosphorylation in recombinant Baf3 cells with IC₅₀ of 76 nM; demonstrates potential therapeutic activity in AML, solid tumors and bone metastases in vivo.
Pathway	: Tyrosine Kinase
Target	: CSF1R
Receptor	: CSF1R
Solubility	: —
SMILES	: <chem>O=C(C1=NC(C#N)=CN1)NC2=CC=C(C3CCN(C(CN(C)C)=O)CC3)C=C2C4=CCCCC4</chem>
Storage	: (-20°C)
Stability	: ≥ 2 years
Reference	:

1. Manthey CL, et al. Mol Cancer Ther. 2009 Nov;8(11):3151-61. | 2. Illig CR, et al. J Med Chem. 2011 Nov 24;54(22):7860-83.