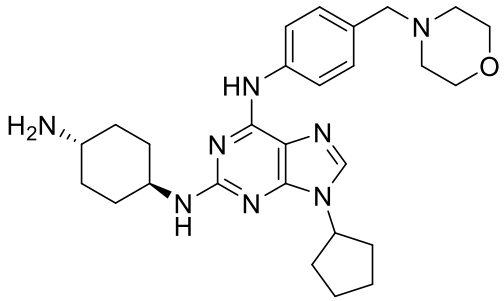
Product data sheet

MedKoo Cat#: 555980 Name: SAN50900 CAS#: 2229050-90-0 Chemical Formula: $C_{27}H_{38}N_8O$ Exact Mass: 490.3169 Molecular Weight: 490.66	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.
	In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:
SAN50900, also known as FLT3-IN-3, is a potent and selective FLT3 inhibitor. SAN50900 displays nanomolar activity in biochemical assays and selectively blocks proliferation of AML cell lines harboring FLT3-ITD mutations, whereas other transformed and normal human cells are several orders of magnitude less sensitive.

2. CoA, QC data, SDS, and handling instruction
SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	250	509.54

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.04 mL	10.19 mL	20.38 mL
5 mM	0.41 mL	2.04 mL	4.08 mL
10 mM	0.20 mL	1.02 mL	2.04 mL
50 mM	0.04 mL	0.23 mL	0.41 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator
Please refer the product web page under section of "Calculator"

6. Recommended literature which reported protocols for in vitro and in vivo study
In vitro study

1. Gucký T, Řezníčková E, Radošová Muchová T, Jorda R, Klejová Z, Malínková V, Berka K, Bazgier V, Ajani H, Lepšík M, Divoký V, Kryštof V. Discovery of N2-(4-Amino-cyclohexyl)-9-cyclopentyl- N6-(4-morpholin-4-ylmethyl-phenyl)- 9H-purine-2,6-diamine as a Potent FLT3 Kinase Inhibitor for Acute Myeloid Leukemia with FLT3 Mutations. J Med Chem. 2018 May 10;61(9):3855-3869. doi: 10.1021/acs.jmedchem.7b01529. Epub 2018 Apr 30. PMID: 29672049.

In vivo study

1. Gucký T, Řezníčková E, Radošová Muchová T, Jorda R, Klejová Z, Malínková V, Berka K, Bazgier V, Ajani H, Lepšík M, Divoký V, Kryštof V. Discovery of N2-(4-Amino-cyclohexyl)-9-cyclopentyl- N6-(4-morpholin-4-ylmethyl-phenyl)- 9H-purine-2,6-diamine as a Potent FLT3 Kinase Inhibitor for Acute Myeloid Leukemia with FLT3 Mutations. J Med Chem. 2018 May 10;61(9):3855-3869. doi: 10.1021/acs.jmedchem.7b01529. Epub 2018 Apr 30. PMID: 29672049.

7. Bioactivity
Biological target:
SAN50900 is a potent FLT3 inhibitor with IC50s of 13 and 8 nM for FLT3 WT and FLT3 D835Y, respectively.

In vitro activity

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In this study, SAN50900 displayed nanomolar activity in biochemical assays and selectively blocked proliferation of AML cell lines harboring FLT3-ITD mutations. MV4-11 cells treated with SAN50900 suppressed the phosphorylation of FLT3 and its downstream signaling pathways, with subsequent G1 cell cycle arrest and apoptosis.

Reference: J Med Chem. 2018 May 10;61(9):3855-3869. https://pubmed.ncbi.nlm.nih.gov/29672049/

In vivo activity

A single dose of SAN50900 in mice with subcutaneous MV4-11 xenografts caused sustained inhibition of FLT3 and STAT5 phosphorylation over 48 h, in contrast to the shorter effect observed after administration of the reference FLT3 inhibitor quizartinib.

Reference: J Med Chem. 2018 May 10;61(9):3855-3869. https://pubmed.ncbi.nlm.nih.gov/29672049/

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.