

Product data sheet



MedKoo Cat#: 406581 Name: STF-118804 CAS#: 894187-61-2 Chemical Formula: C ₂₅ H ₂₃ N ₃ O ₄ S Exact Mass: 461.1409 Molecular Weight: 461.53	
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:

STF-118804 is a potent and highly specific NAMPT inhibitor (nicotinamide phosphoribosyl transferase inhibitor), which improves survival in an orthotopic xenotransplant model of high-risk acute lymphoblastic leukemia, and targets leukemia stem cells.

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	39.54	85.67
DMF	25.0	54.17
DMF:PBS (pH 7.2) (1:5)	0.20	0.43
Ethanol	1.0	2.17

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.17 mL	10.83 mL	21.67 mL
5 mM	0.43 mL	2.17 mL	4.33 mL
10 mM	0.22 mL	1.08 mL	2.17 mL
50 mM	0.04 mL	0.22 mL	0.43 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. Espindola-Netto JM, Chini CCS, Tarragó M, Wang E, Dutta S, Pal K, Mukhopadhyay D, Sola-Penna M, Chini EN. Preclinical efficacy of the novel competitive NAMPT inhibitor STF-118804 in pancreatic cancer. *Oncotarget*. 2017 Jun 29;8(49):85054-85067. doi: 10.18632/oncotarget.18841. PMID: 29156703; PMCID: PMC5689593.

In vivo study

1. Espindola-Netto JM, Chini CCS, Tarragó M, Wang E, Dutta S, Pal K, Mukhopadhyay D, Sola-Penna M, Chini EN. Preclinical efficacy of the novel competitive NAMPT inhibitor STF-118804 in pancreatic cancer. *Oncotarget*. 2017 Jun 29;8(49):85054-85067. doi: 10.18632/oncotarget.18841. PMID: 29156703; PMCID: PMC5689593.

7. Bioactivity

Biological target: STF-118804 is a NAMPT inhibitor which reduces the viability of most B-ALL cell lines with IC₅₀ <10 nM.

In vitro activity

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STF-118804 reduced viability and growth of different PDAC (pancreatic ductal adenocarcinoma cell) lines, as well as the formation of colonies in soft agar. In addition, STF-118804 decreased glucose uptake, lactate excretion, and ATP levels, resulting in metabolic collapse. Furthermore, STF-118804 treatment activated AMPK and inhibited of mTOR pathways in these cells.

Reference: Oncotarget. 2017 Jun 29;8(49):85054-85067. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5689593/>

In vivo activity

Panc-1 cells expressing GFP-luciferase were orthotopically implanted on mice pancreas to test the in vivo effectiveness of STF-118804. STF-118804 reduced tumor size after 21 days of treatment. Combinations of STF-118804 with chemotherapeutic agents such as paclitaxel, gemcitabine, and etoposide showed an additive effect in decreasing cell viability and growth. Overall these results show that the NAMPT inhibitor STF-118804 reduced the growth of PDAC in vitro and in vivo and had an additive effect in combination with main current chemotherapeutic drugs.

Reference: Oncotarget. 2017 Jun 29;8(49):85054-85067. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5689593/>

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.