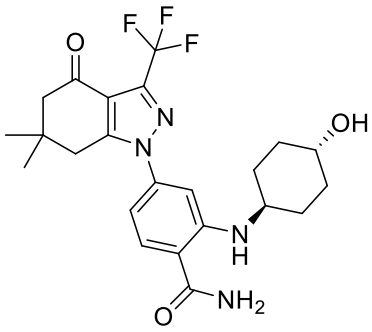
Product data sheet

MedKoo Cat#: 205736 Name: SNX-2112 CAS#: 908112-43-6 Chemical Formula: $C_{23}H_{27}F_3N_4O_3$ Exact Mass: 464.2035 Molecular Weight: 464.48	
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:
SNX-2112, also known as PF 04928473, is an Hsp90 inhibitor which is currently undergoing multiple phase 1 clinical trials. In all cell lines, SNX-2112 led to degradation of MET, HER-2, EGFR, and AKT as well as abrogation of Ras/Raf/MEK/MAPK and PI3K/AKT signaling, followed by complete cell cycle arrest.

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	47.0	101.19
DMSO:PBS (pH 7.2) (1:1)	0.5	1.08
DMF	0.25	0.54
Ethanol	1.0	2.15

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	**1 mg**	**5 mg**	**10 mg**
1 mM	2.15 mL	10.76 mL	21.53 mL
5 mM	0.43 mL	2.15 mL	4.31 mL
10 mM	0.22 mL	1.08 mL	2.15 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. Cheng X, Qin L, Deng L, Zhu X, Li Y, Wu X, Zheng Y. SNX-2112 Induces Apoptosis and Inhibits Proliferation, Invasion, and Migration of Non-Small Cell Lung Cancer by Downregulating Epithelial-Mesenchymal Transition via the Wnt/β-Catenin Signaling Pathway. J Cancer. 2021 Aug 3;12(19):5825-5837. doi: 10.7150/jca.56640. PMID: 34475996; PMCID: PMC8408115.
2. Hu L, Wang Y, Chen Z, Fu L, Wang S, Zhang X, Zhang P, Lu X, Jie H, Li M, Wang Y, Liu Z. Hsp90 Inhibitor SNX-2112 Enhances TRAIL-Induced Apoptosis of Human Cervical Cancer Cells via the ROS-Mediated JNK-p53-Autophagy-DR5 Pathway. Oxid Med Cell Longev. 2019 Mar 25;2019:9675450. doi: 10.1155/2019/9675450. PMID: 31019655; PMCID: PMC6452544.

In vivo study

1. Okawa Y, Hideshima T, Steed P, Vallet S, Hall S, Huang K, Rice J, Barabasz A, Foley B, Ikeda H, Raje N, Kiziltepe T, Yasui H, Enatsu S, Anderson KC. SNX-2112, a selective Hsp90 inhibitor, potently inhibits tumor cell growth, angiogenesis, and osteoclastogenesis in multiple myeloma and other hematologic tumors by abrogating signaling via Akt and ERK. Blood. 2009 Jan 22;113(4):846-55. doi: 10.1182/blood-2008-04-151928. Epub 2008 Oct 23. PMID: 18948577; PMCID: PMC2630270.

2. Chandarlapaty S, Sawai A, Ye Q, Scott A, Silinski M, Huang K, Fadden P, Partdrige J, Hall S, Steed P, Norton L, Rosen N, Solit DB. SNX2112, a synthetic heat shock protein 90 inhibitor, has potent antitumor activity against HER kinase-dependent cancers. Clin Cancer Res. 2008 Jan 1;14(1):240-8. doi: 10.1158/1078-0432.CCR-07-1667. PMID: 18172276; PMCID: PMC3203688.

7. Bioactivity

Biological target:

SNX-2112 selectively binds to the ATP pocket of HSP90α and HSP90β with Ka of 30 nM and 30 nM. SNX-2112 inhibits proliferation in a panel of cancer cell lines (IC50s = 10-50 nM).

In vitro activity

SNX-2112 has potential in the treatment of non-small cell lung cancer (NSCLC). SNX-2112 promoted cell death and hindered the growth, invasion, and movement of NSCLC cells in vitro. This study identified the mechanism involved, revealing that SNX-2112 suppressed epithelial-mesenchymal transition (EMT) and the Wnt/β-catenin signaling pathway in NSCLC cells.

Reference: J Cancer. 2021 Aug 3;12(19):5825-5837. https://pubmed.ncbi.nlm.nih.gov/34475996/

In vivo activity

SNX-2112 has the potential to improve patient outcome in multiple myeloma (MM) and other blood cancers. In a mouse model, SNX-2112, delivered as SNX-5422, slowed MM growth and extended survival. SNX-2112 also prevented the formation of blood vessels and inhibited bone cell development.

Reference: Blood. 2009 Jan 22;113(4):846-55. https://pubmed.ncbi.nlm.nih.gov/18948577/

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.