# **Product data sheet**



MedKoo Cat#: 461641		
Name: S-3304		
CAS#: 203640-27-1		/\ \ O
Chemical Formula: C <sub>24</sub> H <sub>20</sub> N <sub>2</sub> O <sub>4</sub> S <sub>2</sub>		S S NH HN O OH
Exact Mass: 464.0864		
Molecular Weight: 464.55		
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:

S-3304 is a sulfonamide derivative that acts as a matrix metalloproteinase inhibitor.

## 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
To be determined	To be determined	To be determined

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

To be determined

#### In vivo study

- 1. Chiappori AA, Eckhardt SG, Bukowski R, Sullivan DM, Ikeda M, Yano Y, Yamada-Sawada T, Kambayashi Y, Tanaka K, Javle MM, Mekhail T, O'bryant CL, Creaven PJ. A phase I pharmacokinetic and pharmacodynamic study of s-3304, a novel matrix metalloproteinase inhibitor, in patients with advanced and refractory solid tumors. Clin Cancer Res. 2007 Apr 1;13(7):2091-9. doi: 10.1158/1078-0432.CCR-06-1586. PMID: 17404091.
- 2. Mant TG, Bradford D, Amin DM, Pisupati J, Kambayashi Y, Yano Y, Tanaka K, Yamada-Sawada T. Pharmacokinetics and safety assessments of high-dose and 4-week treatment with S-3304, a novel matrix metalloproteinase inhibitor, in healthy volunteers. Br J Clin Pharmacol. 2007 May;63(5):512-26. doi: 10.1111/j.1365-2125.2006.02794.x. Epub 2006 Oct 31. PMID: 17076695; PMCID: PMC2000759.

#### 7. Bioactivity

Biological target:

S-3304 is a MMP inhibitor specific for MMP-2 and MMP-9.

In vitro activity

To be determined

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### In vivo activity

S-3304 is safe, well tolerated, and achieves plasma concentrations above those required to inhibit MMP-2 and MMP-9. S-3304 prolongs survival in mice xenografts and is well tolerated in healthy volunteers. After S-3304 administration, 17 of 18 patients experienced inhibition of MMP activity by FIZ.

Reference: Clin Cancer Res. 2007 Apr 1;13(7):2091-9. https://pubmed.ncbi.nlm.nih.gov/17404091/

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.