

Product data sheet



MedKoo Cat#: 561285 Name: SM-7368 CAS#: 380623-76-7 Chemical Formula: C ₁₀ H ₅ ClN ₄ O ₅ S Exact Mass: 327.9669 Molecular Weight: 328.68	
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:

SM-7368 inhibits TNF-alpha-induced MMP-9 upregulation in a concentration-dependent manner. SM-7368 strongly inhibits the TNF-alpha-induced invasion of HT1080 human fibrosarcoma cell line.

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	83.33	253.52

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	3.04 mL	15.21 mL	30.42 mL
5 mM	0.61 mL	3.04 mL	6.08 mL
10 mM	0.30 mL	1.52 mL	3.04 mL
50 mM	0.06 mL	0.30 mL	0.61 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

- Morizane Y, Thanos A, Takeuchi K, Murakami Y, Kayama M, Trichonas G, Miller J, Foretz M, Viollet B, Vavvas DG. AMP-activated protein kinase suppresses matrix metalloproteinase-9 expression in mouse embryonic fibroblasts. *J Biol Chem*. 2011 May 6;286(18):16030-8. doi: 10.1074/jbc.M110.199398. Epub 2011 Mar 14. PMID: 21402702; PMCID: PMC3091212.
- Lee HY, Park KS, Kim MK, Lee T, Ryu SH, Woo KJ, Kwon TK, Bae YS. A small compound that inhibits tumor necrosis factor-alpha-induced matrix metalloproteinase-9 upregulation. *Biochem Biophys Res Commun*. 2005 Oct 21;336(2):716-22. doi: 10.1016/j.bbrc.2005.08.154. PMID: 16140265.

In vivo study

To be determined

7. Bioactivity

Biological target:

SM-7368 targets downstream of MAPK p38 activation and inhibits TNF- α -induced MMP-9 upregulation.

In vitro activity

SM-7368 has promise for developing chemotherapies targeting TNF-alpha-mediated tumor invasion and metastasis. In HT1080 human fibrosarcoma cells, SM-7368 concentration-dependently inhibited TNF-alpha-induced MMP-9 upregulation by suppressing

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mRNA transcript accumulation and protein expression. Additionally, SM-7368 strongly hindered TNF-alpha-induced NF-kappaB activity without affecting AP-1 activity, leading to a significant inhibition of cell invasion.

Reference: Biochem Biophys Res Commun. 2005 Oct 21;336(2):716-22. <https://pubmed.ncbi.nlm.nih.gov/16140265/>

In vivo activity

To be determined

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.