

Product data sheet



MedKoo Cat#: 561190 Name: NSC348884 CAS: 81624-55-7 Chemical Formula: C ₃₈ H ₄₀ N ₁₀ Exact Mass: 636.3437 Molecular Weight: 636.808		
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:

NSC348884 is a nucleophosmin inhibitor. NSC348884 also disrupts oligomer formation and induces apoptosis in human cancer 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
DMF	20.0	31.41
DMF:PBS (pH 7.2) (1:2)	0.25	0.39
DMSO	48.0	75.38
Ethanol	50.5	79.30

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	1.57 mL	7.85 mL	15.70 mL
5 mM	0.31 mL	1.57 mL	3.14 mL
10 mM	0.16 mL	0.79 mL	1.57 mL
50 mM	0.03 mL	0.16 mL	0.31 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

- Zhang J, Zhao HL, He JF, Li HY. [Inhibitory effect of NSC348884, a small molecular inhibitor of nucleophosmin, on the growth of hepatocellular carcinoma cell line hepG2]. Zhongguo Yi Xue Ke Xue Yuan Xue Bao. 2012 Feb;34(1):58-61. Chinese. PMID: 22737721.
- Qi W, Shakalya K, Stejskal A, Goldman A, Beeck S, Cooke L, Mahadevan D. NSC348884, a nucleophosmin inhibitor disrupts oligomer formation and induces apoptosis in human cancer cells. Oncogene. 2008 Jul 10;27(30):4210-20. doi: 10.1038/onc.2008.54. Epub 2008 Mar 17. PMID: 18345031.

In vivo study

TBD

7. Bioactivity

Biological target:

NSC348884 is a nucleophosmin (NPM) inhibitor, it disrupts oligomer formation and induces apoptosis, inhibits cell proliferation with IC₅₀s of 1.7-4.0 μM in distinct cancer cell lines.

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In vitro activity

After HepG2 cells were treated by NSC348884 for 4 days, the effect of HepG2 cells on proliferation was measured by methyl thiazolyl tetrazolium (MTT) assay, the expression variation of nucleophosmin oligomer and monomer was measured using Western blotting, and cell apoptotic rate was detected by flow cytometry. The proliferation of HepG2 cells was remarkably inhibited by NSC348884 treatment when the drug concentration ranged from 1 micromol/L to 10 micromol/L ($P < 0.05$), with a 50% inhibiting concentration of 1.4 micromol/L.

Reference: Zhongguo Yi Xue Ke Xue Yuan Xue Bao. 2012 Feb;34(1):58-61. <https://pubmed.ncbi.nlm.nih.gov/22737721/>

In vivo activity

TBD

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.