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Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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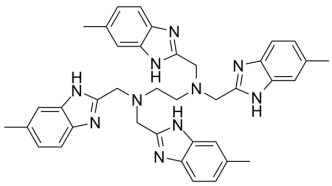
NSC348884

Cat. No.:	HY-13915
CAS No.:	81624-55-7
Molecular Formula:	$C_{38}H_{40}N_{10}$
Molecular Weight:	636.79
Target:	Apoptosis
Pathway:	Apoptosis
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 34 mg/mL (53.39 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	1.5704 mL	7.8519 mL	15.7038 mL
5 mM	0.3141 mL	1.5704 mL	3.1408 mL
10 mM	0.1570 mL	0.7852 mL	1.5704 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: 2.5 mg/mL (3.93 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.5 mg/mL (3.93 mM); Suspended solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (3.93 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

NSC348884 is a nucleophosmin (NPM) inhibitor, it disrupts oligomer formation and induces apoptosis, inhibits cell proliferation with IC_{50}s of 1.7-4.0 μM in distinct cancer cell lines. NSC348884 can be used for the research of cancer[1].

IC_{50} & Target

IC50: 4 μM (LNCaP cells), 1.7 μM (Granta cells)[1]

In Vitro

NSC348884 (0-6 μM; 24 h) binds with NPM and disrupts NPM oligomer formation[1].

NSC348884 (0.01-100 μM; 4 d) shows cytotoxicity to cancer cells[1].
NSC348884 (1 μM; 4 d) shows cytotoxicity to mantle cell lymphoma with 0.1 nM doxorubicin[1].
NSC348884 (1-5 μM; 24 h) induces cell apoptosis[1].
NSC348884 (0-5 μM; 0-24 h) upregulates the concentration of p53[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

Cell Line:	LNCaP and Granta cell lines
Concentration:	0.01-100 μM
Incubation Time:	4 days
Result:	Inhibited LNCaP cells and Granta cell lines with IC_{50}s of 4 and 1.7 μM, respectively.

Apoptosis Analysis[1]

Cell Line:	LNCaP cell line
Concentration:	1-5 μM
Incubation Time:	24 h
Result:	Induced apoptosis in LNCaP cell line.

Western Blot Analysis[1]

Cell Line:	LNCaP cell line
Concentration:	0-5 μM
Incubation Time:	0-24 h
Result:	Dose-dependently increased both p53 protein level and phosphorylation on Ser15, and increased the concentration of p21.

Western Blot Analysis[2]

Cell Line:	SKOV3, ES2 and MOSEC/Luc cell lines
Concentration:	0, 2.5 and 5 μM
Incubation Time:	48 h
Result:	Increased PD-L1 expression in ovarian cancer cells.

In Vivo

NSC348884 (50 μg; i.p. once) reduces tumor growth[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	C57Bl/6J mice with MOSEC/Luc cells injection[2]
Dosage:	50 μg
Administration:	Intraperitoneal injection; 50 μg once
Result:	Reduced tumorigenesis, but not completely inhibited.

CUSTOMER VALIDATION

- Front Microbiol. 2021 May 25;12:679341.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Lin Y, et al. Inhibition of nucleophosmin/B23 sensitizes ovarian cancer cells to antiprogrammed cell death protein-1 ligand therapy. 2022.

[2]. Qi W, et al. NSC348884, a nucleophosmin inhibitor disrupts oligomer formation and induces apoptosis in human cancercells. Oncogene. 2008 Jul 10;27(30):4210-20.

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