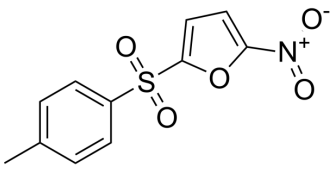
NSC697923

Cat. No.:	HY-13811
CAS No.:	343351-67-7
Molecular Formula:	$C_{11}H_9NO_5S$
Molecular Weight:	267.26
Target:	E1/E2/E3 Enzyme; Apoptosis
Pathway:	Metabolic Enzyme/Protease; Apoptosis
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 200 mg/mL (748.33 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.7417 mL	18.7084 mL	37.4167 mL
	5 mM	0.7483 mL	3.7417 mL	7.4833 mL
	10 mM	0.3742 mL	1.8708 mL	3.7417 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: ≥ 5 mg/mL (18.71 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 5 mg/mL (18.71 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

NSC697923 is a potent UBE2N (ubiquitin-conjugating enzyme E2 N, Ubc13) inhibitor. NSC697923 induces neuroblastoma (NB) cell death via promoting nuclear importation of p53 in p53 wild-type NB cells. NSC697923 also induces cell death in p53 mutant NB cells by activation of JNK-mediated apoptotic pathway. NSC697923 inhibits DNA damage and NF-κB signaling. Antitumor activity[1][2].

In Vitro

NSC697923 (0-5 μM; 24 hours) shows cytotoxic effect on NB cell lines[1].
?NSC697923 (3?μM; 2 hours) can also induce apoptosis in p53 mutant NB cells by activation of JNK-mediated apoptotic pathway[1].
?NSC697923 induces apoptosis in p53 wild-type NB cell lines by promoting p53 nuclear translocation and activation[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]	
Cell Line:	Three MYCN-amplified cell lines: IMR32, NGP, NB19 and three MYCN-non-amplified cell lines: CHLA-255, SK-N-AS, and SH-SY5Y
Concentration:	0-5 μM
Incubation Time:	24 hours
Result:	Significantly reduced NB cells viability in a dose-dependent manner. Also induced cell death in the p53 non-functional cell line SK-N-AS and p53 partially functional cell line NB-19.
Western Blot Analysis[1]	
Cell Line:	p53 wild-type SH-SY5Y and IMR32 cells
Concentration:	3 μM
Incubation Time:	2 hours
Result:	Induced expression of p53-targeted gene p21 as well as the cleavage of caspase 3 in two p53 wild-type cell lines SH-SY5Y and IMR32.

In Vivo

NSC697923 (5?mg/kg; i.p.; daily for 10 days) suppresses NB tumor growth in SH-SY5Y and NGP xenografts[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	5- to 6-week-old female athymic Ncr nude mice (orthotopic mouse model of NB; SH-SY5Y and NGP xenografts)[1]
Dosage:	5 mg/kg
Administration:	I.p.; daily for 10 days
Result:	Significant tumor regression in both SH-SY5Y and NGP xenografts.

CUSTOMER VALIDATION

- J Cell Physiol. 2024 Oct 7:e31459.
- Viruses. 2023 Feb 28.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Cheng J, et al. A small-molecule inhibitor of UBE2N induces neuroblastoma cell death via activation of p53 and JNK pathways. Cell Death Dis. 2014;5(2):e1079. Published 2014 Feb 20.

[2]. Hodge CD, et al. Covalent Inhibition of Ubc13 Affects Ubiquitin Signaling and Reveals Active Site Elements Important for Targeting. ACS Chem Biol. 2015;10(7):1718-1728.

Caution: Product has not been fully validated for medical applications. For research use only.

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