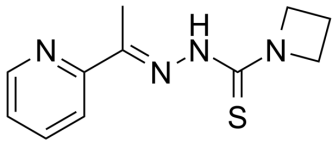
NSC319726

Cat. No.:	HY-18634
CAS No.:	71555-25-4
Molecular Formula:	$C_{11}H_{14}N_4S$
Molecular Weight:	234.32
Target:	MDM-2/p53
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 : 31.25 mg/mL (133.36 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.2677 mL	21.3383 mL	42.6767 mL
	5 mM	0.8535 mL	4.2677 mL	8.5353 mL
	10 mM	0.4268 mL	2.1338 mL	4.2677 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: ≥ 2.08 mg/mL (8.88 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (8.88 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

NSC319726 (ZMC1) is a mutant p53R175 reactivator; inhibits growth of fibroblasts expressing the p53R175 mutation (IC50 = 8 nM); shows no inhibition for p53 wild-type cells.

IC_{50} & Target

IC50: 8 nM (mutant p53R175 reactivator)[1].

In Vitro

For NSC319726, the effect was even greater as the IC50 for the 175 mutant was 8 nM while the IC50 of the WT was not reached. NSC319726 did not induce WT p53 protein levels or transcriptional activity as common cytotoxic agents such as etoposide do in vitro. NSC319726 exhibited a much higher sensitivity for the MEF-p53R172H/R172H cell line as compared to the p53+/+ and p53-/- controls. NSC319726 treatment of a MEF cell line derived from p53R172H/R172H mice resulted in aloss of PAB240 immunoflouresence staining.

	MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	At a dose of 1mg/kg, tumor growth of the H460 (p53+/+) and MDAMB468 (p53R273W) xenografts was not inhibited relative to the vehicle control whereas tumor growth was significantly inhibited in the TOV112D (p53R175H) xenografts. When we lowered the dose ten-fold to 0.1 mg/kg in the TOV112D mice, we observed only a small difference in tumor growth inhibition demonstrating both a dosage effect of the drug and a larger therapeutic window.Taken together, these findings provide in vivo evidence for allele specific p53 mutant reactivation. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Yu X, et al. Allele-specific p53 mutant reactivation. Cancer Cell. 2012 May 15;21(5):614-25.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA