

NSC319726

Catalog No: tcsc3542



Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg



Specifications

CAS No:

71555-25-4

Formula:

$C_{11}H_{14}N_4S$

Pathway:

Apoptosis

Target:

MDM-2/p53

Purity / Grade:

>98%

Solubility:

DMSO : 27.5 mg/mL (117.36 mM; Need ultrasonic and warming)

Alternative Names:

ZMC1

Observed Molecular Weight:

234.32

Product Description

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

IC₅₀ value: 8 nM [1]

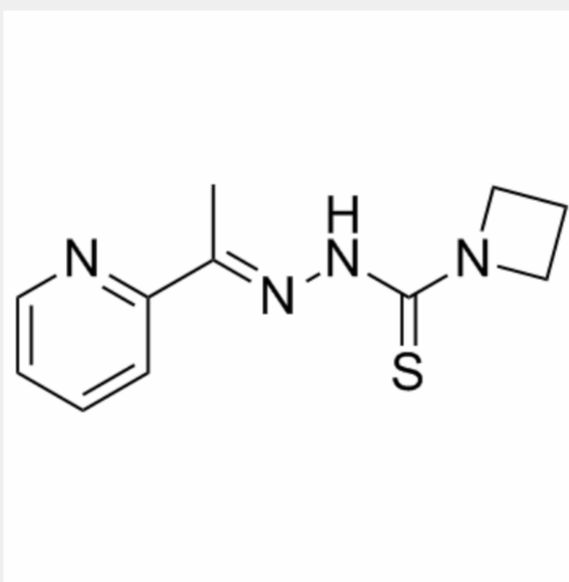
Target: mutant p53R175 reactivator

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 a

loss of PAB240 immunofluorescence staining.

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.



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