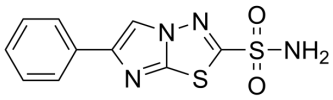
AEG3482

Cat. No.:	HY-107599
CAS No.:	63735-71-7
Molecular Formula:	$C_{10}H_8N_4O_2S_2$
Molecular Weight:	280.33
Target:	JNK; Apoptosis
Pathway:	MAPK/ERK Pathway; 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 : 250 mg/mL (891.81 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.5672 mL	17.8361 mL	35.6722 mL
	5 mM	0.7134 mL	3.5672 mL	7.1344 mL
	10 mM	0.3567 mL	1.7836 mL	3.5672 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 (7.42 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (7.42 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

AEG3482 is a potent antiapoptotic compound that inhibits Jun kinase (JNK) activity through induced expression of heat shock protein 70 (HSP70). AEG3482 directly binds HSP90, thereby facilitating HSF1-dependent expression of HSP70 and HSP25[1].

IC_{50} & Target

JNK[1]

In Vitro

AEG3482 (0.3-30 μM; 2 d) inhibits nerve growth factor (NGF) withdrawal-induced death in SCG neurons, with an EC_{50} of ~20 μM[1].

AEG3482 (1-80 μM; 40 h) inhibits p75NTR- and NRAGE- mediated apoptosis of PC12 cells in a dose-dependent manner[1].

AEG3482 (10-40 μM; 30 h) inhibits p75NTR- and NRAGE-mediated JNK activation in PC12 cells[1].

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

Apoptosis Analysis[1]

Cell Line:	PC12 cells
Concentration:	1, 2.5, 5, 10, 20, 40, 80 μM
Incubation Time:	40 hours
Result:	Reduced p75NTR- or NRAGE-induced cell death by greater than 90% at the concentration of 40 μM. Exerted a slight toxic effect in cells infected with the LacZ control at the concentration of 80 μM.

Western Blot Analysis[1]

Cell Line:	PC12 cells
Concentration:	10, 20, 40 μM
Incubation Time:	30 hours
Result:	Attenuated p75NTR- and NRAGE-induced c-Jun phosphorylation and caspase-3 cleavage, and the levels of c-Jun protein.

REFERENCES

[1]. Salehi AH, et, al. AEG3482 is an antiapoptotic compound that inhibits Jun kinase activity and cell death through induced expression of heat shock protein 70. Chem Biol. 2006 Feb;13(2):213-23.

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