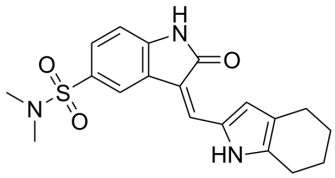
SU6656

Cat. No.:	HY-B0789
CAS No.:	330161-87-0
Molecular Formula:	$C_{19}H_{21}N_3O_3S$
Molecular Weight:	371.45
Target:	Src; FAK; Akt
Pathway:	Protein Tyrosine Kinase/RTK; PI3K/Akt/mTOR
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 : 20 mg/mL (53.84 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.6922 mL	13.4608 mL	26.9215 mL
5 mM	0.5384 mL	2.6922 mL	5.3843 mL
10 mM	0.2692 mL	1.3461 mL	2.6922 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 mg/mL (5.38 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

SU6656 is a Src family kinases inhibitor with IC_{50}s of 280, 20, 130, 170 nM for Src, Yes, Lyn, and Fyn, respectively. SU6656 inhibits FAK phosphorylation at Y576/577, Y925, Y861 sites. SU6656 also inhibits p-AKT.

In Vitro

SU6656 decreases phosphorylation of Src family kinases (SFKs) in HNSCC cells[2].

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

In Vivo

SU6656 (2-4 mg/kg; i.p.; once) significantly decreases ischemic postconditioning (IPoCo) mediated increase in fall down time [5].

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Animal Model:	Swiss albino male mice[5]

Dosage:	2, 4 mg/kg
Administration:	Intraperitoneal injection; once
Result:	Significantly decreased IPoCo mediated increase in fall down time.

CUSTOMER VALIDATION

- Theranostics. 2020 Jul 9;10(19):8573-8590.
- Cancer Res. 2021 Jan 1;81(1):187-198.
- J Med Chem. 2021 Sep 3.
- Biochim Biophys Acta Mol Basis Dis. 2018 Nov;1864(11):3824-3836.
- J Agric Food Chem. 2021 Jul 29.

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REFERENCES

[1]. Blake RA, et al. SU6656, a selective src family kinase inhibitor, used to probe growth factor signaling. Mol Cell Biol. 2000 Dec;20(23):9018-27.

[2]. Veracini L, et al. Elevated Src family kinase activity stabilizes E-cadherin-based junctions and collective movement of head and neck squamous cell carcinomas. Oncotarget. 2014 Dec 26.

[3]. Wu ML, et al. Divergent signaling pathways cooperatively regulate TGFβ induction of cysteine-rich protein 2 in vascular smooth muscle cells. Cell Commun Signal. 2014 Mar 28;12:22.

[4]. Ondrusová L, et al. Inhibition of mTORC1 by SU6656, the selective Src kinase inhibitor, is not accompanied by activation of Akt/PKB signalling in melanoma cells. Folia Biol (Praha). 2013;59(4):162-7.

[5]. Kumar A, et al. Pharmacological investigations on possible role of Src kinases in neuroprotective mechanism of ischemic postconditioning in mice. Int J Neurosci. 2014 Oct;124(10):777-86.

[6]. Liu XF, et al. Antitumor effects of immunotoxins are enhanced by lowering HCK or treatment with SRC kinase inhibitors. Mol Cancer Ther. 2014 Jan;13(1):82-9.

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