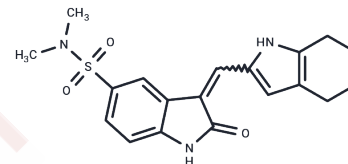


SU6656

Chemical Properties

CAS No. : 330161-87-0
 Formula: C₁₉H₂₁N₃O₃S
 Molecular Weight: 371.45
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
 Actual storage temperature shall be subject to the COA.



Biological Description

Description	SU 6656 is a selective inhibitor of Src family kinases, with IC ₅₀ of 280 nM, 20 nM, 130 nM, and 170 nM for Src, Yes, Lyn, and Fyn, respectively.
Targets(IC ₅₀)	FAK,Akt,Src
In vitro	In NIH 3T3 cells, SU 6656 inhibits the PDGF-stimulated S-phase induction with IC ₅₀ of 0.3-0.4 μM. SU 6656 also inhibits PDGF- and serum-mediated NIH 3T3 cell proliferation, as well as epidermal growth factor and colony-stimulating factor 1-stimulated DNA synthesis in normal and colony-stimulating factor 1 receptor transfected NIH 3T3 cells. SU6656 inhibits PDGF-stimulated c-Myc induction and ERK2 activation.[1] Pretreating Jurkat T-cells with SU 6656 leads to increased VSV-G luciferase activity.[2] SU 6656 impairs TGF-β-mediated upregulation of CTGF mRNA and protein in proximal epithelial HKC-8 cells, and also reduces CTGF expression in cells exposed to autocrine growth factors. SU 6656 interferes with Aurora kinase activity resulting in inhibition of cell division and formation multilobular nuclei.[3]
In vivo	SU 6656 markedly and dose-dependently attenuates mecamylamine-induced experimental nicotine withdrawal syndrome in mice measured in terms of WSS and anxiety score.[4] Once-daily administration of SU 6656 (1.5, 3, and 6 mg/kg, i.p.) markedly and dose-dependently attenuates the naloxone-induced morphine withdrawal syndrome.[5]
Kinase Assay	Biochemical kinase assays for IC ₅₀ determination and kinetic studies: IC ₅₀ measurements are made using poly-Glu-Tyr (4:1), or, in the case of Lck, poly-Lys-Tyr (4:1) as a peptide substrate. The divalent cation is 20 mM MgCl ₂ (in the case of Src, Fyn, Yes, Lyn, Csk, Frk, or Abl) or 10 mM MnCl ₂ (in the case of FGFR1, IGF1R, Lck, or Met). The final ATP concentrations are as follows: Src, 10 μM; Fyn, 6 μM; Yes, 100 μM; Lyn, 2 μM; Csk, 10 μM; Frk, 10 μM; Abl, 4 μM; FGFR1, 10 μM; IGF1R, 2 μM; Lck, 2 μM; Met, 5 μM; PDGFR, 6 μM. IC ₅₀ measurements of PDGFRb autophosphorylation are determined on immunoprecipitated PDGFRb. Km values are calculated using the Eadie-Hofstee method.
Cell Research	HKC-8 cells are seeded at different cells densities (10,000 cells/cm ² and 50,000 cells/cm ²) and cultured in the presence or absence of SU 6656 for 24 and 48 h. Bright field pictures of cells are recorded by Olympus CK40 microscope using Leica DC Viewer software.(Only for Reference)

Solubility Information

Solubility	DMSO: 83.33 mg/mL (224.34 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: < 8.33 mg/mL (22.43 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+90% Corn oil: < 8.33 mg/mL (22.43 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+90% (20% SBE- β -CD in Saline): < 8.33 mg/mL (22.43 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: < 8.33 mg/mL (22.43 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
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
50 mM	0.0538 mL	0.2692 mL	0.5384 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

- Blake RA, et al. Mol Cell Biol. 2000, 20(23), 9018-9027.
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 Cicha I, et al. Int J Biochem Cell Biol. 2014 Jan;46:39-48.
 Rehni AK, et al. Nicotine Tob Res. 2012, 14(4), 407-414.
 Rehni AK, et al. Behav Pharmacol. 2011, 22(2), doi: 10.1097/FBP.

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