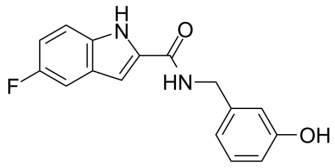
KX1-004

Cat. No.:	HY-18237
CAS No.:	518058-84-9
Molecular Formula:	$C_{16}H_{13}FN_2O_2$
Molecular Weight:	284.29
Target:	Src
Pathway:	Protein Tyrosine Kinase/RTK
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 : 100 mg/mL (351.75 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.5175 mL	17.5877 mL	35.1753 mL
	5 mM	0.7035 mL	3.5175 mL	7.0351 mL
	10 mM	0.3518 mL	1.7588 mL	3.5175 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: ≥ 2.5 mg/mL (8.79 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (8.79 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

KX1-004 is a potent and non-ATP competitive Src-PTK inhibitor with an IC_{50} of 40 μM. KX1-004 protects the cochlea from hazardous noise and prevents noise-induced hearing loss (NIHL)[1][2].

In Vivo

KX1-004 (30 μM) provides significant protection against noise-induced temporary threshold shift (TTS), permanent threshold shift (PTS) and outer hair cells (OHC) loss[1].

KX1-004 (50 mg/kg) is effective against noise exposure[2].

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

REFERENCES

[1]. Harris KC, et al. Prevention of noise-induced hearing loss with Src-PTK inhibitors. Hear Res. 2005 Oct;208(1-2):14-25.

[2]. Bielefeld EC, et al. A comparison of the protective effects of systemic administration of a pro-glutathione drug and a Src-PTK inhibitor against noise-induced hearing loss. Noise Health. 2005 Oct-Dec;7(29):24-30.

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