Proteins

Product Data Sheet

FSCPX

Cat. No.: HY-116042 CAS No.: 156547-56-7 Molecular Formula: $C_{23}H_{27}FN_4O_6S$ Molecular Weight: 506.55

Target: Adenosine Receptor Pathway: GPCR/G Protein

Storage: Powder -20°C 3 years

> In solvent -80°C 6 months

> > -20°C 1 month

SOLVENT & SOLUBILITY

In Vitro

DMSO: 50 mg/mL (98.71 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	1.9741 mL	9.8707 mL	19.7414 mL
	5 mM	0.3948 mL	1.9741 mL	3.9483 mL
	10 mM	0.1974 mL	0.9871 mL	1.9741 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (4.94 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	FSCPX is a potent and selective irreversible antagonist of A_1 adenosine receptor (A_1AR), with low nanomolar potency for binding to the A_1AR . FSCPX could modify the effect of NBTI, a nucleoside transport inhibitor, by reducing the interstitial adenosine level in the guinea pig atrium ^{[1][2]} .	
IC ₅₀ & Target	$A1AR^{[1]}$	
In Vitro	FSCPX irreversibly blocks the binding of [³ H]-8-cyclopentyl-1,3dipropylxanthine ([³ H]DPCPX), with an IC ₅₀ of 11.8±3.2 nM in DDT ₁ MF2 cells ^[1] . FSCPX (20 µM; 48 h) attenuates protection from necrosis and apoptosis in A1AR-overexpressing LLC-PK1 cells ^[3] . FSCPX (2-20 µM; 48 h) reverses the upregulation of HSP27 mRNA and protein in A1AR-overexpressing LLC-PK1 cells without an effect on the mRNA or protein for HSP70 ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

REFERENCES

- [1]. Beauglehole AR, et, al. New irreversible adenosine A(1) antagonists based on FSCPX. Bioorg Med Chem Lett. 2002 Nov 4; 12(21): 3179-82.
- [2]. Erdei T, et, al. FSCPX, a Chemical Widely Used as an Irreversible A₁ Adenosine Receptor Antagonist, Modifies the Effect of NBTI, a Nucleoside Transport Inhibitor, by Reducing the Interstitial Adenosine Level in the Guinea Pig Atrium. Molecules. 2018 Aug 3
- [3]. Lee HT, et, al. Renal tubule necrosis and apoptosis modulation by A1 adenosine receptor expression. Kidney Int. 2007 Jun;71(12):1249-61.

Caution: Product has not been fully validated for medical applications. For research use only.

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