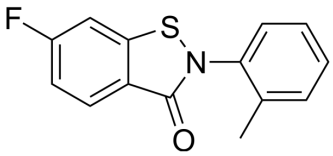
Thr101

Cat. No.:	HY-124890
CAS No.:	727664-79-1
Molecular Formula:	$C_{14}H_{10}FNOS$
Molecular Weight:	259.3
Target:	Others
Pathway:	Others

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 : 100 mg/mL (385.65 mM; ultrasonic and warming and heat to 80°C)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.8565 mL	19.2827 mL	38.5654 mL
5 mM	0.7713 mL	3.8565 mL	7.7131 mL
10 mM	0.3857 mL	1.9283 mL	3.8565 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: 5 mg/mL (19.28 mM); Clear solution; Need ultrasonic and warming and heat to 160°C
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: 5 mg/mL (19.28 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Thr101 is an inhibitor (IC_{50}=2.9 μM) of phosphomannose isomerase (PMI).PMI can compete with phosphomannose mutase 2 (PMM2) for the binding site of Man-6-P and convert mannose-6-phosphate (Man-6-P) into fructose-6-phosphate (Fru-6-P) .Thr101 only specifically inhibits PMI and not PMM2. Thr101 can be used for research of congenital disorder of glycosylation type Ia (CDG-Ia)[1].

IC_{50} & Target

ic50: 2.9 μM (Phosphomannose isomerase, PMI)[1]

REFERENCES

[1]. Dahl R, et al. Potent, selective, and orally available benzoisothiazolone phosphomannose isomerase inhibitors as probes for congenital disorder of glycosylation Ia. J Med Chem. 2011 May 26;54(10):3661-8.

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