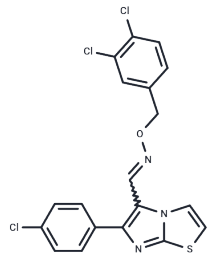
Data Sheet (Cat.No.T14973)

TargetMol

CITCO

Chemical Properties



CAS No. :	338404-52-7
Formula:	C19H12Cl3N3OS
Molecular Weight:	436.74
Appearance:	no data available
Storage:	store at low temperature Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	CITCO inhibits growth and expansion of brain tumour stem cells (BTSCs) and has an EC50 of 49 nM over pregnane X receptor (PXR), and no activity on other nuclear receptors. CITCO is an imidazothiazole derivative and it also is a selective Constitutive androstane receptor (CAR) agonist.
Targets(IC50)	Apoptosis
In vitro	CITCO (1-50 μM; 48 hours) results in dose-dependent inhibition of viable cell count and proliferation in T98G, U87MG glioma, and BTSCs. CITCO (0-25 μM; 48 hours) significantly increases CAR protein expression in T98G, U87MG glioma, and BTSCs. CITCO (2.5-10 μM; 48 hours) induces apoptosis in BTSCs in a dose-dependent manner, but not in normal astrocytes. CITCO (2.5, 5 μM; 48 hours) induces differential cell cycle arrest in various BTSCs in culture, but not in normal astrocytes[1].
In vivo	CITCO (intraperitoneal; 25?μg; on days 22, 24, 26, 30 and 36) results a significant decrease in tumour growth. After treatment with 100?μg CITCO, it further decreases to an undetectable level [1].

Solubility Information

Solubility	H2O: insoluble, DMSO: 11 mg/mL (25.19 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2897 mL	11.4485 mL	22.8969 mL
5 mM	0.4579 mL	2.2897 mL	4.5794 mL
10 mM	0.229 mL	1.1448 mL	2.2897 mL
50 mM	0.0458 mL	0.229 mL	0.4579 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.

Reference

Chakraborty S, et al. Constitutive androstane receptor agonist CITCO inhibits growth and expansion of brain tumour stem cells. Br J Cancer. 2011 Feb 1;104(3):448-59.