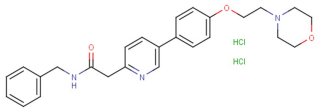
Data Sheet (Cat.No.T15674)

TargetMol
A DRUG SCREENING EXPERT

Tirbanibulin dihydrochloride

Chemical Properties



CAS No.:	1038395-65-1
Formula:	C26H31Cl2N3O3
Molecular Weight:	504.45
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Tirbanibulin is an inhibitor of Src that targets the peptide substrate site of Src (GI50: 9-60 nM in cancer cell lines).
Targets(IC_{50})	Src HuH7: (GI50)9 nM Src PLC/PRF/5: 13 nM Src Hep3B: 26 nM Src HepG2: 60 nM
In vitro	Tirbanibulin (KX2-391) is found to inhibit certain leukemia cells that are resistant to current commercially available drugs, such as those derived from chronic leukemia cells with the T3151 mutation. KX2-391 displays steep dose-response curves against Huh7 (GI50=9 nM), PLC/PRF/5 (GI50=13 nM), Hep3B (GI50=26 nM), and HepG2 (GI50=60 nM), four hepatic cell cancer (HCC) cell lines [1]. Tirbanibulin is evaluated in engineered Src drove cell growth assays inNIH3T3/c-Src527F and SYF/c-Src527F cells and exhibits GI50 with 23 nM and 39 nM, respectively [2].
In vivo	In pre-clinical animal models of cancer, Tirbanibulin (p.o.) is shown to inhibit primary tumor growth and to suppress metastasis [2].

Solubility Information

Solubility	DMSO: 33.33 mg/mL (66.07 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.982 mL	9.912 mL	19.824 mL
5 mM	0.396 mL	1.982 mL	3.965 mL
10 mM	0.198 mL	0.991 mL	1.982 mL
50 mM	0.04 mL	0.198 mL	0.396 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Lau GM, et al. Expression of Src and FAK in hepatocellular carcinoma and the effect of Src inhibitors on hepatocellular carcinoma in vitro. Dig Dis Sci, 2009, 54(7), 1465-1474.

2. Fallah-Tafti A, et al. Thiazolyl N-benzyl-substituted acetamide derivatives: synthesis, Src kinase inhibitory and anticancer activities. Eur J Med Chem, 2011, 46(10), 4853-4858.

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