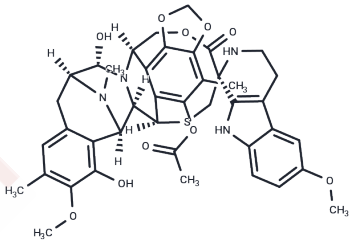
Data Sheet (Cat.No.T15793)

TargetMol

Lurbinectedin

Chemical Properties



CAS No. : 497871-47-3

Formula: C41H44N4O10S

Molecular Weight: 784.87

Storage: Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Lurbinectedin (PM01183) is a DNA minor groove covalent binder that demonstrates effective anti-tumor activity.
Targets(IC50)	Others,DNA Alkylator/Crosslinker,DNA/RNA Synthesis
In vitro	Lurbinectedin inhibits RMG1 and RMG2 cell growth (IC50: 1.25 and 1.16 nM, respectively). Lurbinectedin exhibits significant antitumor activity toward chemosensitive and chemoresistant human ovarian clear cell carcinoma (CCC) cells in vitro[1]. Lurbinectedin-DNA adducts in living cells give rise to double-strand breaks, triggering S-phase accumulation, and apoptosis. Lurbinectedin is a new synthetic tetrahydroisoquinoline alkaloid that is currently in phase I clinical development for the treatment of solid tumors. The potent cytotoxic activity of Lurbinectedin is ascertained in a 23-cell line panel with a mean GI50 value of 2.7 nM[2].
In vivo	Lurbinectedin inhibits tumor growth significantly with no weight loss of treated animals, in four murine xenograft models of human cancer[2]. Mouse CCC cell xenografts show that lurbinectedin significantly inhibits tumor growth. Lurbinectedin plus SN-38 causes a significant synergistic effect[1].

Solubility Information

Solubility	DMSO: 15 mg/mL (19.11 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.2741 mL	6.3705 mL	12.741 mL
5 mM	0.2548 mL	1.2741 mL	2.5482 mL
10 mM	0.1274 mL	0.637 mL	1.2741 mL
50 mM	0.0255 mL	0.1274 mL	0.2548 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Takahashi R, et al. Preclinical Investigations of PM01183 (Lurbinectedin) as a Single Agent or in Combination with Other Anticancer Agents for Clear Cell Carcinoma of the Ovary. PLoS One. 2016 Mar 17;11(3):e0151050.
Leal JF, et al. PM01183, a new DNA minor groove covalent binder with potent in vitro and in vivo anti-tumour activity. Br J Pharmacol. 2010 Nov;161(5):1099-110.
Vidal A, et al. Lurbinectedin (PM01183), a new DNA minor groove binder, inhibits growth of orthotopic primary graft of NSC 119875-resistant epithelial ovarian cancer. Clin Cancer Res. 2012 Oct 1;18(19):5399-411.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481