Lurbinectedin (PM01183)

Catalog No.C14353 Batch:C1435303

Product Datasheet

Technical Data

Formula	$C_{41}H_{44}N_4O_{10}S$					
Molecular Weight	784.87	**CAS No.**	497871-47-3			
Solubility (25°C)*	In vitro	DMSO	100 mg/mL (127.4 mM)			
	In vivo (Add solvents to the product individually and in order)	Oral Administration	Homogeneous suspension	CMC-NA	≥5mg/ml	Taking the 1 mL working solution as an example, add 5 mg of this product to 1 ml of CMC-Na solution, mix evenly to obtain a homogeneous suspension with a final concentration of 5 mg/ml.

* <1 mg/ml means slightly soluble or insoluble.
* Please note that Capsid Bio tests the solubility of all compounds in-house, and the actual solubility may differ slightly from published values. This is normal and is due to slight batch-to-batch variations.
* Room temperature shipping (Stability testing shows this product can be shipped at 2-8°C for storage purposes.)

Preparing Stock Solutions

Biological Activity

Description	Lurbinectedin, a **DNA minor groove** covalent binder with potent in vitro and in vivo anti-tumour activity. Lurbinectedin inhibits RMG1 and RMG2 cell growth with IC50 of 1.25 nM and 1.16 nM, respectively.
Targets	DNA minor groove [1] / RMG2 cell growth [1] (Cell-based assay): 1.16 nM / RMG1 cell growth [1] (Cell-based assay): 1.25 nM
In vitro	Lurbinectedin exhibits significant antitumor activity toward chemosensitive and chemoresistant CCC cells in vitro. This compound plus SN-38 combination has strong synergistic effects on both the cisplatin-resistant and paclitaxel-resistant CCC cell lines.[1]
In vivo	An examination of mouse CCC cell xenografts reveals that lurbinectedin significantly inhibits tumor growth. This compound plus SN-38 combination results in a significant synergistic effect. Everolimus significantly enhances the antitumor activity of this chemical-based chemotherapies.[1]

Protocol (from reference)

Cell Assay:[1]

- **Cell lines**
  The human ovarian CCC cell lines (RMG1, RMG2, KOC7C, HAC2)
- **Concentrations**
  0.1 nM, 0.3 nM, 1 nM, 3 nM
- **Incubation Time**
  48 h
- **Method**
  CCC cells (2~5×10^5) are treated with lurbinectedin, SN38 or in combination of the two drugs at the indicated concentrations for 48 hours. Then, the cells are harvested and stained with PI and annexin V using the annexin V-fluorescein isothiocyanate (FITC) apoptosis detection kit, according to the manufacturer's instructions. Fluorescence data are collected using flow cytometry. The sum total of early apoptotic cells (annexin V(+), PI(−) cells) and late apoptotic cells (annexin V(+), PI(+) cells) is defined as the total number of apoptotic cells. The experiments are repeated at least three times.

Animal Study:[1]

- **Animal Models**
  5- to 7-week-old nude mice
- **Dosages**
  0.180 mg/kg
- **Administration**
  IV

References

https://pubmed.ncbi.nlm.nih.gov/26986199/ https://pubmed.ncbi.nlm.nih.gov/20977459/

RETURN POLICY

Capsid Bio's Unconditional Return Policy ensures a smooth online shopping experience for our customers. If you are in any way unsatisfied with your purchase, you may return any item(s) within 7 days of receiving it. In the event of product quality issues, either protocol related or product related problems, you may return any item(s) within 365 days from the original purchase date. Please follow the instructions below when returning products.

SHIPPING & STORAGE

Capsid Bio products are transported at room temperature. If you receive the product at room temperature, please rest assured, the Capsid Bio Quality Inspection Department has conducted experiments to verify that the normal temperature placement of one month will not affect the biological activity of powder products. After collecting, please store the product according to the requirements described in the datasheet. Most Capsid Bio products are stable under the recommended conditions.

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