

Milademetan

Chemical Properties

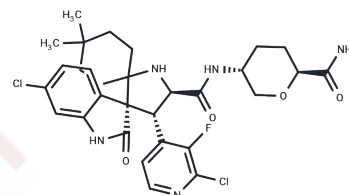
CAS No. : 1398568-47-2

Formula: C₃₀H₃₄Cl₂FN₅O₄

Molecular Weight: 618.53

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	Milademetan (DS-3032) is an orally active and potent MDM2 inhibitor with antitumor activity that induces G1 cell cycle arrest, senescence, and apoptosis. Milademetan is used in the study of acute myeloid leukemia and solid tumors.
Targets(IC50)	Mdm2
In vitro	Milademetan (DS-3032) selectively induces CDKN1A, BAX, and MDM2 expression and stabilizes TP53 in neuroblastoma cells with wild-type TP53[3]. Treatment with Milademetan (DS-3032) enhances TP53 target gene expression, leading to G1 cell cycle arrest, senescence, and apoptosis[3]. In neuroblastoma cells with wild-type TP53, independent of MYCN status, Milademetan (DS-3032, 0-2000 nM) treatment selectively inhibits viability, proliferation, and migration [2].
In vivo	In mice xenografted with neuroblastoma cells possessing functional TP53, oral gavage administration of Milademetan (DS-3032) at a dose of 50 mg/kg delays tumor growth and improves overall survival[2].

Solubility Information

Solubility	DMSO: 55 mg/mL (88.92 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6167 mL	8.0837 mL	16.1674 mL
5 mM	0.3233 mL	1.6167 mL	3.2335 mL
10 mM	0.1617 mL	0.8084 mL	1.6167 mL
50 mM	0.0323 mL	0.1617 mL	0.3233 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

- M.M. Gounder, et al. Milademetan, an oral MDM2 inhibitor, in well-differentiated/dedifferentiated liposarcoma: results from a phase 1 study in patients with solid tumors or lymphomas. *European Journal of Cancer* 138S2 (2020) S1-S62.
- Viktor Arnhold, et al. Reactivating TP53 signaling by the novel MDM2 inhibitor DS-3032b as a therapeutic option for high-risk neuroblastoma. *ncotarget*. 2018 Jan 5; 9(2): 2304-2319.
- Li, Yangbing, et al. Development of novel PROTAC Small-Molecule Degraders of MDM2 Protein and Peptidomimetic Inhibitors Targeting WDR5-MLL1 Protein-Protein Interaction.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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