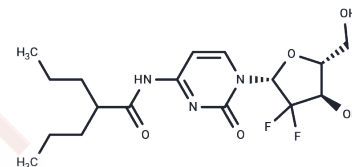


LY2334737

Chemical Properties

CAS No. : 892128-60-8
 Formula: C17H25F2N3O5
 Molecular Weight: 389.39
 Storage: 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	LY2334737 is an orally available prodrug of gemcitabine with antineoplastic activity.
Targets(IC50)	Nucleoside Antimetabolite/Analog,Virus Protease
In vitro	Five cell lines expressing CES2 responded to LY2334737 treatment, which was less cytotoxic to SK-OV-3 CES2 knockdown than to parental cells. CES2-transfected HCT-116 cell drug response correlated with CES2 expression level. Bystander studies showed significantly greater PC-3-GFP growth inhibition by LY2334737 when cocultured with CES2, not mock transfectants [1].
In vivo	Oral treatment of xenograft models with 3.2 mg/kg LY2334737 once daily for 21 days showed significantly greater tumor growth inhibition in CES2 transfectants compared to mock transfectants ($P \leq 0.001$) [1]. The MTD was 40 mg LY2334737. Fatigue was the most frequent DLT for LY2334737 monotherapy (4 patients), followed by elevated transaminase levels (2 patients), both observed at the 40-50 mg dose levels. In the combination arm, 2 of 10 patients experienced DLTs at the 40 mg dose level, which included fatigue and elevated liver enzyme levels [2]. Metronomic LY2334737 administration increased blood flow in luciferase-tagged LM2-4 tumor xenografts, measurable via contrast micro-ultrasound, and coincided with a relative increase in tumor bioluminescence [3].

Solubility Information

Solubility	DMSO: 45 mg/mL (115.57 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (5.14 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5681 mL	12.8406 mL	25.6812 mL
5 mM	0.5136 mL	2.5681 mL	5.1362 mL
10 mM	0.2568 mL	1.2841 mL	2.5681 mL
50 mM	0.0514 mL	0.2568 mL	0.5136 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

- Pratt SE, et al. Human carboxylesterase-2 hydrolyzes the prodrug of gemcitabine (LY2334737) and confers prodrug sensitivity to cancer cells. *Clin Cancer Res.* 2013 Mar 1;19(5):1159-68.
- Cai Y, Zhou H, Zhu Y, et al. Elimination of senescent cells by β -galactosidase-targeted prodrug attenuates inflammation and restores physical function in aged mice. *Cell Research.* 2020: 1-16.
- Koolen SL, et al. Phase I study of Oral gemcitabine prodrug (LY2334737) alone and in combination with erlotinib in patients with advanced solid tumors. *Clin Cancer Res.* 2011 Sep 15;17(18):6071-82.
- Francia G, et al. Low-dose metronomic oral dosing of a prodrug of gemcitabine (LY2334737) causes antitumor effects in the absence of inhibition of systemic vasculogenesis. *Mol Cancer Ther.* 2012 Mar;11(3):680-9.
- Cai Y, Zhou H, Zhu Y, et al. Elimination of senescent cells by β -galactosidase-targeted prodrug attenuates inflammation and restores physical function in aged mice[J]. *Cell Research.* 2020: 1-16.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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