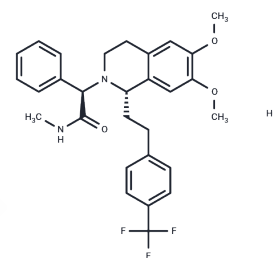


Almorexant hydrochloride

Chemical Properties

CAS No. :	913358-93-7
Formula:	C ₂₉ H ₃₂ ClF ₃ N ₂ O ₃
Molecular Weight:	549.02
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	Almorexant hydrochloride (ACT 078573 hydrochloride) is an orally active dual orexin receptor antagonist that blocks the intracellular Ca ²⁺ signaling pathway and, to a certain extent, blocks the excitatory effects of methamphetamine. Almorexant hydrochloride Induces apoptosis and can be used to study sleep disorders.
Targets(IC50)	Apoptosis,Others,Calcium Channel,Caspase,OX Receptor
In vitro	AsPC-1 cells preincubated or not with the SHP2 inhibitor NSC-87877 (50 μM) were challenged for 5 min without or with 1 μM orexin-A or 1 μM Almorexant hydrochloride. In parallel, HPAF-II cells were also challenged for 5 min without or with 1 μM orexin-A. Orexin-A and Almorexant hydrochloride promote tyrosine phosphorylation of SHP2/OX1R complex. [1]
In vivo	Daily intraperitoneal injection of Almorexant hydrochloride (1.8 μmol/kg) at day 0 in mice xenografted with AsPC-1 cells and up to the mice sacrifices resulted in a significant decrease in tumor volume (> 50%), as compared to untreated mice. Treatment with Almorexant hydrochloride started after AsPC-1 tumors were developed, rapidly and strongly reduced the volume of established tumors. OX1R expression revealed by immunodetection was not affected by Almorexant hydrochloride treatment. [1]

Solubility Information

Solubility	Ethanol: 48 mg/mL (87.43 mM),Sonication is recommended. DMSO: 40 mg/mL (72.86 mM),Sonication is recommended. H ₂ O: < 0.1 mg/mL (insoluble), (< 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 (3.64 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	1.8214 mL	9.1071 mL	18.2143 mL
5 mM	0.3643 mL	1.8214 mL	3.6429 mL
10 mM	0.1821 mL	0.9107 mL	1.8214 mL
50 mM	0.0364 mL	0.1821 mL	0.3643 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

Dayot S, et al. In vitro, in vivo and ex vivo demonstration of the antitumoral role of hypocretin-1/orexin-A and almoxant in pancreatic ductal adenocarcinoma. *Oncotarget*. 2018 Jan 9;9(6):6952-6967.

Black SW, et al. Almoxant promotes sleep and exacerbates cataplexy in a murine model of narcolepsy. *Sleep*. 2013 Mar 1;36(3):325-36.

Anderson RI, et al. *Front Neurosci*. 2014, 8, 33.

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