

Rilmenidine hemifumarate

Chemical Properties

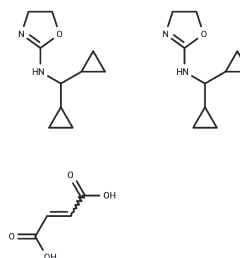
CAS No. : 207572-68-7

Formula: C₁₀H₁₆N₂O₁/2C₄H₄O₄

Molecular Weight: 238.28

Storage: Store at low temperature, Store under nitrogen
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	Rilmenidine hemifumarate (S-3341 hemifumarate) is a novel, orally active and selective I1 imidazoline receptor and α ₂ -adrenoceptor agonist that induces autophagy, regulates the proliferation of leukaemia cells, stimulates the pro-apoptotic protein Bax, and induces autophagy in human leukaemia K5 cells. induces disruption of the mitochondrial pathway and apoptosis in human leukaemia K562 cells.
Targets(IC50)	Apoptosis, Adrenergic Receptor, Autophagy, Imidazoline Receptor
In vitro	Rilmenidine offers antihypertensive efficacy comparable to diuretics, beta-blockers, calcium channel blockers, and angiotensin-converting enzyme (ACE) inhibitors. Rilmenidine (25-100 μM; 24 hours) also inhibits K562 cell proliferation[3].
In vivo	In Rilmenidine-treated N171-82Q mice (i.p.; 4-times a week), significant improvement in forelimb grip strength and all limbs grip strength is observed from 12 to 22 weeks of age. Rilmenidine also decreases levels of mutant huntingtin[2].

Solubility Information

Solubility	H ₂ O: 30 mg/mL (125.9 mM), Sonication is recommended. DMSO: 5 mg/mL (20.98 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	4.1967 mL	20.9837 mL	41.9674 mL
5 mM	0.8393 mL	4.1967 mL	8.3935 mL
10 mM	0.4197 mL	2.0984 mL	4.1967 mL
50 mM	0.0839 mL	0.4197 mL	0.8393 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

Reid JL. Rilmenidine: a clinical overview. *Am J Hypertens.* 2000;13(6 Pt 2):106S-111S.

Rose C, et al. Rilmenidine attenuates toxicity of polyglutamine expansions in a mouse model of Huntington's disease. *Hum Mol Genet.* 2010;19(11):2144-2153.

Srdic-Rajic T, et al. Rilmenidine suppresses proliferation and promotes apoptosis via the mitochondrial pathway in human leukemic K562 cells. *Eur J Pharm Sci.* 2016;81:172-180.

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