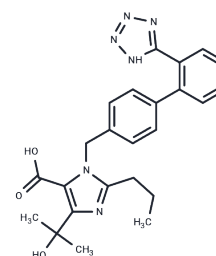


Olmesartan

Chemical Properties

CAS No. :	144689-24-7
Formula:	C ₂₄ H ₂₆ N ₆ O ₃
Molecular Weight:	446.50
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	Olmesartan (RNH 6270) is an Angiotensin II Type I receptor antagonist. Olmesartan is the active form of the antihypertensive drug olmesartan medoxomil, and has antihypertensive activity.
Targets(IC50)	RAAS
In vivo	The target blood pressure (<130/80 mm Hg) was achieved in nearly 80% of the patients taking olmesartan and 71% taking placebo; blood pressure measured in the clinic was lower by 3.1/1.9 mm Hg in the olmesartan group than in the placebo group. Microalbuminuria developed in 8.2% of the patients in the olmesartan group (178 of 2160 patients who could be evaluated) and 9.8% in the placebo group (210 of 2139); the time to the onset of microalbuminuria was increased by 23% with olmesartan (hazard ratio for onset of microalbuminuria, 0.77; 95% confidence interval, 0.63 to 0.94; P=0.01). The serum creatinine level doubled in 1% of the patients in each group. Slightly fewer patients in the olmesartan group than in the placebo group had nonfatal cardiovascular events--81 of 2232 patients (3.6%) as compared with 91 of 2215 patients (4.1%) (P=0.37)--but a greater number had fatal cardiovascular events--15 patients (0.7%) as compared with 3 patients (0.1%) (P=0.01), a difference that was attributable in part to a higher rate of death from cardiovascular causes in the olmesartan group than in the placebo group among patients with preexisting coronary heart disease (11 of 564 patients [2.0%] vs. 1 of 540 [0.2%], P=0.02)[1].
Animal Research	In a randomized, double-blind, multicenter, controlled trial, Assigned 4447 patients with type 2 diabetes to receive olmesartan (at a dose of 40 mg once daily) or placebo for a median of 3.2 years. Additional antihypertensive drugs (except angiotensin-converting-enzyme inhibitors or ARBs) were used as needed to lower blood pressure to less than 130/80 mm Hg. The primary outcome was the time to the first onset of microalbuminuria. The times to the onset of renal and cardiovascular events were analyzed as secondary end points[1].

Solubility Information

Solubility	DMSO: 6.25 mg/mL (14.00 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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A DRUG SCREENING EXPERT

In vivo Formulation	10% DMSO+90% Saline: 1.83 mg/mL (4.1 mM),Solution. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1.00 mg/mL (2.24 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>
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2396 mL	11.1982 mL	22.3964 mL
5 mM	0.4479 mL	2.2396 mL	4.4793 mL
10 mM	0.224 mL	1.1198 mL	2.2396 mL
50 mM	0.0448 mL	0.224 mL	0.4479 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

- Haller H , Ito S , Izzo J L , et al. Olmesartan for the Delay or Prevention of Microalbuminuria in Type 2 Diabetes[J]. New England Journal of Medicine, 2011, 364(10):907-917.
- Omboni S, Volpe M.Management of arterial hypertension with angiotensin receptor blockers: Current evidence and the role of olmesartan[1].Cardiovasc Ther. 2018 Dec;36(6):e12471.

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