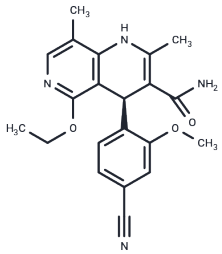
Data Sheet (Cat.No.T21395)

TargetMol

Finerenone

Chemical Properties



CAS No. : 1050477-31-0

Formula: C21H22N4O3

Molecular Weight: 378.42

Storage: Keep away from direct sunlight,Keep away from moisture,Store at low temperature
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	Finerenone (BAY-948862) is a nonsteroidal antagonist of the mineralocorticoid receptor (MR) (IC50=18 nM) with selective and oral activity. Finerenone is used in the treatment of patients with chronic kidney disease with type 2 diabetes.
Targets(IC50)	Glucocorticoid Receptor
In vitro	**METHODS**: Human smooth muscle cells SMC and human endothelial cells EC were treated with aldosterone (1-50 nM) and Finerenone (1-10 nM) for 24 h. Cell proliferation was detected by BrdU incorporation assay. **RESULTS**: After stimulation with aldosterone, the proliferation rate of SMC increased significantly. Although treatment with 1 nM concentration of Finerenone showed a clear tendency to decrease the SMC proliferation rate, 10 nM Finerenone adequately and significantly blocked aldosterone-induced SMC proliferation. However, aldosterone did not affect EC proliferation in vitro, nor did Finerenone. [1] **METHODS**: HK-GFP-hMR cells were treated with aldosterone (10 nM) and Finerenone (1 μM) for 3 h. The gene expression levels were measured by RT-qPCR. **RESULTS**: Finerenone was effective in antagonizing some aldosterone-induced genes. [2]
In vivo	**METHODS**: To investigate the effects on vascular remodeling after acute vascular injury, Finerenone (1-10 mg/kg) was administered orally once daily for 21 days to wire-induced femoral artery dilated C57BL/6 mice. **RESULTS**: Finerenone treatment inhibited intimal and intermediate cell proliferation after wire-induced injury in mouse femoral arteries at 10 days post-injury and attenuated the formation of neoplastic intimal injury at 21 days post-injury. [1]

Solubility Information

Solubility	DMSO: 60 mg/mL (158.55 mM),Sonication is recommended. H2O: Insoluble, (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 6 mg/mL (15.86 mM),Solution. *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*

In vivo Formulation	*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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6426 mL	13.2128 mL	26.4257 mL
5 mM	0.5285 mL	2.6426 mL	5.2851 mL
10 mM	0.2643 mL	1.3213 mL	2.6426 mL
50 mM	0.0529 mL	0.2643 mL	0.5285 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

Dutzmann J, et al. The novel mineralocorticoid receptor antagonist finerenone attenuates neointima formation after vascular injury. PLoS One. 2017 Sep 19;12(9):e0184888.
Le Billan F, et al. Antagonistic effects of finerenone and spironolactone on the aldosterone-regulated transcriptome of human kidney cells. FASEB J. 2021 Feb;35(2):e21314.