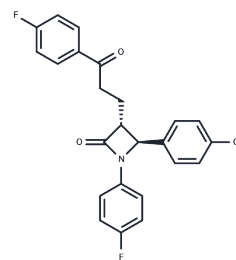


## Ezetimibe ketone

## Chemical Properties

CAS No. :	191330-56-0
Formula:	C <sub>24</sub> H <sub>19</sub> F <sub>2</sub> NO <sub>3</sub>
Molecular Weight:	407.41
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	Ezetimibe ketone (EZM-K) is a metabolite of Ezetimibe with antioxidant activity, alleviating H <sub>2</sub> O <sub>2</sub> -induced apoptosis and reactive oxygen species (ROS) in NRK-52E cells, upregulating Nrf2 and HO-1 levels.
Targets(IC <sub>50</sub> )	Nrf2, Autophagy, ROS
In vitro	Ezetimibe ketone alleviates H <sub>2</sub> O <sub>2</sub> -induced apoptosis and reactive oxygen species (ROS) production in NRK-52E cells, and upregulates Nrf2 and HO-1 levels. [1]
In vivo	In rat RIRI models, pretreatment with Ezetimibe ketone activated Nrf2/HO-1 signaling pathway, inhibited renal tubule injury and inflammation, and improved renal function. [1]

## Solubility Information

Solubility	DMSO: 80 mg/mL (196.36 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 (4.91 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

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	2.4545 mL	12.2726 mL	24.5453 mL
5 mM	0.4909 mL	2.4545 mL	4.9091 mL
10 mM	0.2455 mL	1.2273 mL	2.4545 mL
50 mM	0.0491 mL	0.2455 mL	0.4909 mL

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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

Chen Z, et al. Ezetimibe ketone protects against renal ischemia-reperfusion injury and attenuates oxidative stress via activation of the Nrf2/HO-1 signaling pathway. *J Biochem Mol Toxicol*. 2024 Aug;38(8):e23792.

Lee DH, et al. Ezetimibe, an NPC1L1 inhibitor, is a potent Nrf2 activator that protects mice from diet-induced nonalcoholic steatohepatitis. *Free Radic Biol Med*. 2016 Sep 12;99:520-532.

Chang E, et al. Ezetimibe improves hepatic steatosis in relation to autophagy in obese and diabetic rats. *World J Gastroenterol*. 2015 Jul 7;21(25):7754-63.

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