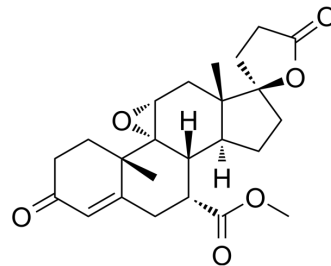


## Eplerenone

<b>Cat. No.:</b>	HY-B0251		
<b>CAS No.:</b>	107724-20-9		
<b>Molecular Formula:</b>	C <sub>24</sub> H <sub>30</sub> O <sub>6</sub>		
<b>Molecular Weight:</b>	414.49		
<b>Target:</b>	Mineralocorticoid Receptor; Endogenous Metabolite		
<b>Pathway:</b>	Metabolic Enzyme/Protease; Vitamin D Related/Nuclear Receptor		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 25 mg/mL (60.32 mM; Need ultrasonic)			
		Solvent Concentration	Mass	
			1 mg	5 mg
			10 mg	
<b>Preparing Stock Solutions</b>	<b>1 mM</b>	2.4126 mL	12.0630 mL	24.1260 mL
	<b>5 mM</b>	0.4825 mL	2.4126 mL	4.8252 mL
	<b>10 mM</b>	0.2413 mL	1.2063 mL	2.4126 mL
Please refer to the solubility information to select the appropriate solvent.				
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 2.5 mg/mL (6.03 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (6.03 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 2.5 mg/mL (6.03 mM); Clear solution</li> </ol>			

### BIOLOGICAL ACTIVITY

<b>Description</b>	Eplerenone (Epoymexrenone) is a selective, highly specific and orally active aldosterone blocker (SAB). Eplerenone also is a selective mineralocorticoid receptor antagonist (MRA) with IC <sub>50</sub> value of 0.081 μM. Eplerenone can be used for the research of hypertension, atherosclerosis, chronic systolic heart failure (HF) and cardiovascular (CV) <sup>[1][2]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	IC <sub>50</sub> : 0.081 μM (human mineralocorticoid receptor) <sup>[2]</sup>
<b>In Vitro</b>	Eplerenone inhibits the human mineralocorticoid receptor with IC <sub>50</sub> value of 0.081 μM <sup>[2]</sup> .

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### In Vivo

Eplerenone (oral, 200 mg/kg/day for 3 months) significantly reduces oxidative stress and atherosclerosis progression in atherosclerotic apolipoprotein Edeficient (EO) mice<sup>[3]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Atherosclerotic apolipoprotein Edeficient (EO) mice <sup>[3]</sup>
Dosage:	200 mg/kg
Administration:	oral, 200 mg/kg/day for 3 months
Result:	Significantly decreased systolic and diastolic blood pressure by 12% and 11%, respectively. Decreased serum susceptibility to lipid peroxidation by as much as 26%, and increased serum paraoxonase activity by 28%. Reduced levels of lipid peroxides, and significantly reduced macrophage oxidation of low-density lipoprotein (LDL) and superoxide ion release. Significantly reduced the atherosclerotic lesion area.

## CUSTOMER VALIDATION

- Br J Pharmacol. 2021 Aug;178(15):2976-2997.
- J Pharmaceut Biomed. 2020, 113870.
- Mol Med Rep. 2020 Sep;22(3):1859-1867.
- Otol Neurotol. 2024 Jan 1;45(1):e49-e56.
- Research Square Preprint. 2021 Apr.

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## REFERENCES

- [1]. Myron H Weinberger, et al. Eplerenone, a selective aldosterone blocker, in mild-to-moderate hypertension. Am J Hypertens. 2002 Aug;15(8):709-16.
- [2]. Shlomo Keidar, et al. Effect of eplerenone, a selective aldosterone blocker, on blood pressure, serum and macrophage oxidative stress, and atherosclerosis in apolipoprotein E-deficient mice. J Cardiovasc Pharmacol. 2003 Jun;41(6):955-63.
- [3]. Dhillon, S., Eplerenone: a review of its use in patients with chronic systolic heart failure and mild symptoms. Drugs, 2013. 73(13): p. 1451-62.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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