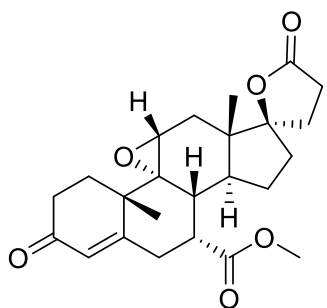


Product data sheet



MedKoo Cat#: 328919 Name: Eplerenone CAS#: 107724-20-9 Chemical Formula: C ₂₄ H ₃₀ O ₆ Exact Mass: 414.2042 Molecular Weight: 414.498		
Product supplied as:		Powder
Purity (by HPLC):		≥ 98%
Shipping conditions		Ambient temperature
Storage conditions:		Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:

Eplerenone, also known as Inspra and CGP-30083, is a selective aldosterone receptor antagonist used to treat hypertension and congestive heart failure. Eplerenone provides marked protection against vascular injury in the kidney and heart.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	13.38	32.28
DMF	2.0	4.83
DMF:PBS (pH 7.2) (1:1)	0.5	1.21

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.41 mL	12.06 mL	24.13 mL
5 mM	0.48 mL	2.41 mL	4.83 mL
10 mM	0.24 mL	1.21 mL	2.41 mL
50 mM	0.05 mL	0.24 mL	0.48 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

1. Wang D, Wang M, Sun P, Gao Q. Eplerenone inhibits oxidized low-density lipoprotein-induced proliferation and migration of vascular smooth muscle cells by downregulating GPER expression. *Adv Clin Exp Med*. 2021 Apr;30(4):405-412. doi: 10.17219/acem/133484. PMID: 33915037.
2. Du L, Qin M, Yi Y, Chen X, Jiang W, Zhou L, Zhang D, Xu K, Yang Y, Li C, Liu Y, Liu X, Duan SZ. Eplerenone Prevents Atrial Fibrosis via the TGF- β Signaling Pathway. *Cardiology*. 2017;138(1):55-62. doi: 10.1159/000471918. Epub 2017 Jun 2. PMID: 28571007.

In vivo study

1. Kowalski J, Deng L, Suennen C, Koca D, Meral D, Bode C, Hein L, Lothar A. Eplerenone Improves Pulmonary Vascular Remodeling and Hypertension by Inhibition of the Mineralocorticoid Receptor in Endothelial Cells. *Hypertension*. 2021 Aug;78(2):456-465. doi: 10.1161/HYPERTENSIONAHA.120.16196. Epub 2021 May 10. PMID: 33966455.
2. Xiong Y, Chang Y, Hao J, Zhang C, Yang F, Wang Z, Liu Y, Wang X, Mu S, Xu Q. Eplerenone Attenuates Fibrosis in the Contralateral Kidney of UO Rats by Preventing Macrophage-to-Myofibroblast Transition. *Front Pharmacol*. 2021 Feb 24;12:620433. doi: 10.3389/fphar.2021.620433. PMID: 33716747; PMCID: PMC7943730.

Product data sheet



7. Bioactivity

Biological target:

Eplerenone (Epoymexrenone) is a selective, competitive and orally active aldosterone antagonist with an IC₅₀ of 138 nM.

In vitro activity

Additionally, notably elevated Ki67 expression was observed in ox-LDL-stimulated VSMCs relative to the untreated group, whereas EPL (eplerenone) intervention significantly decreased Ki67 expression, especially under co-treatment with 3 μM EPL (Fig. 1C). Consistently, EPL markedly downregulated the expression of minichromosome maintenance-2 (MCM-2) and proliferating cell nuclear antigen (PCNA), which are key proliferation-related proteins, in ox-LDL-exposed VSMCs (Fig. 1D). These results implicate that EPL attenuates proliferation of VSMCs stimulated by ox-LDL.

Reference: Adv Clin Exp Med. 2021 Apr;30(4):405-412. <https://pubmed.ncbi.nlm.nih.gov/33915037/>

In vivo activity

To induce pulmonary hypertension, mice were exposed to chronic hypoxia for 6 weeks. Treatment with the MR antagonist eplerenone attenuated pulmonary vascular remodeling, hypertension, and right ventricular dysfunction.

Reference: Hypertension. 2021 Aug;78(2):456-465. <https://pubmed.ncbi.nlm.nih.gov/33966455/>

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.