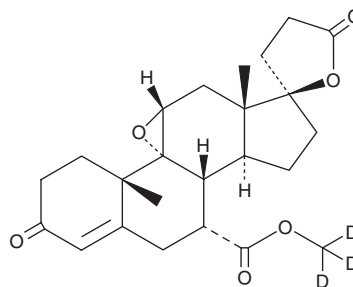


# PRODUCT INFORMATION



## Eplerenone-d<sub>3</sub> Item No. 31610

**Formal Name:** (7 $\alpha$ ,11 $\alpha$ ,17 $\alpha$ )-9,11-epoxy-17-hydroxy-3-oxo-pregn-4-ene-7,21-dicarboxylic acid,  $\gamma$ -lactone, 7-methyl ester-d<sub>3</sub>  
**Synonyms:** (+)-Eplerenone-d<sub>3</sub>, Epoxymexrenone-d<sub>3</sub>  
**MF:** C<sub>24</sub>H<sub>27</sub>D<sub>3</sub>O<sub>6</sub>  
**FW:** 417.5  
**Chemical Purity:**  $\geq$ 95% (Eplerenone)  
**Deuterium Incorporation:**  $\geq$ 99% deuterated forms (d<sub>1</sub>-d<sub>3</sub>);  $\leq$ 1% d<sub>0</sub>  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:**  $\geq$ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Eplerenone-d<sub>3</sub> is intended for use as an internal standard for the quantification of eplerenone (Item No. 15616) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

### Description

Eplerenone is a mineralocorticoid receptor antagonist.<sup>1</sup> It is selective for the mineralocorticoid receptor over glucocorticoid, androgen, progesterone, and estrogen receptors in radioligand binding assays (IC<sub>50</sub>s = 138, 6,920, 523, >10,000, and 5,702 nM, respectively). Eplerenone inhibits aldosterone-induced mineralocorticoid activity in a luciferase assay (IC<sub>50</sub> = 122 nM). *In vivo*, eplerenone (100 mg/kg per day) reduces urinary albumin secretion and glomerulosclerosis in the Dahl salt-sensitive rat model of hypertension and nephropathy. It reduces myocardial IL-1 $\beta$  levels and collagen deposition, as well as improves left ventricular systolic dysfunction in a mouse model of acute myocardial infarction.<sup>2</sup> Formulations containing eplerenone have been used in the treatment of hypertension and heart failure after myocardial infarction.

### References

1. Meyers, M.J., Arhancet, G.B., Hockerman, S.L., *et al.* Discovery of (3S,3aR)-2-(3-chloro-4-cyanophenyl)-3-cyclopentyl-3,3a,4,5-tetrahydro-2H-benzo[g]indazole-7-carboxylic acid (PF-3882845), an orally efficacious mineralocorticoid receptor (MR) antagonist for hypertension and nephropathy. *J. Med. Chem.* **53**(16), 5979-6002 (2010).
2. Chen, B., Geng, J., Gao, S.-X., *et al.* Eplerenone modulates interleukin-33/sST2 signaling and IL-1 $\beta$  in left ventricular systolic dysfunction after acute myocardial infarction. *J. Interferon. Cytokine Res.* **38**(3), 137-144 (2018).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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