

# PRODUCT INFORMATION



## 9(R)-HETE-d<sub>8</sub> Item No. 9003557

**Formal Name:** (5Z,7E,9R,11Z,14Z)- 9-hydroxy-5,7,11,14-eicosatetraenoic-5,6,8,9,11,12,14,15-d<sub>8</sub> acid

**Synonym:** 9(R)-Hydroxyeicosatetraenoic Acid-d<sub>8</sub>

**MF:** C<sub>20</sub>H<sub>24</sub>D<sub>8</sub>O<sub>3</sub>

**FW:** 328.5

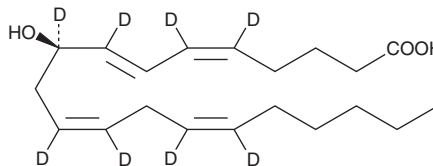
**Chemical Purity:** ≥98% (9(R)-HETE)

**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>8</sub>); ≤1% d<sub>0</sub>

**Supplied as:** A solution in acetonitrile

**Storage:** -20°C

**Stability:** ≥1 year



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

### Laboratory Procedures

9(R)-HETE-d<sub>8</sub> is intended for use as an internal standard for the quantification of 9(R)-HETE (Item No. 34405) 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).

9(R)-HETE-d<sub>8</sub> is supplied as a solution in acetonitrile. To change the solvent, simply evaporate the acetonitrile under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of 9(R)-HETE-d<sub>8</sub> in these solvents is approximately 50 mg/ml in ethanol and 20 mg/ml in DMSO and DMF.

### Description

9(R)-HETE-d<sub>8</sub> is intended for use as an internal standard for the quantification of 9-HETE by GC- or LC-MS. (±)9-HETE is formed by lipid peroxidation of arachidonic acid (Item Nos. 90010 | 90010.1 | 10006607).<sup>1</sup> 9(S)-HETE and 9(R)-HETE are formed via oxidation of arachidonic acid by rat liver microsomal cytochrome P450 (CYP) in a non-stereoselective manner.<sup>2</sup>

### References

1. Powell, W.S. and Rokach, J. Biosynthesis, biological effects, and receptors of hydroxyeicosatetraenoic acids (HETEs) and oxoeicosatetraenoic acids (oxo-ETEs) derived from arachidonic acid. *Biochim. Biophys. Acta* **1851**(4), 340-355 (2014).
2. Capdevila, J., Yadagiri, P., and Manna, S. Absolute configuration of the hydroxyeicosatetraenoic acids (HETEs) formed during catalytic oxygenation of arachidonic acid by microsomal cytochrome P-450. *Biochem. Biophys. Res. Commun.* **141**(3), 1007-1011 (1986).

#### 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.

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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM