

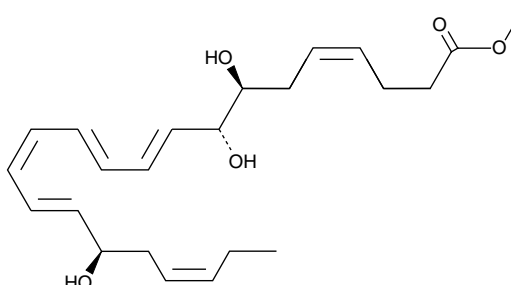
# Product Information



## 17(R)-Resolvin D1 methyl ester

Item No. 9001072

**CAS Registry No.:** 937738-64-2  
**Formal Name:** 7S,8R,17R-trihydroxy-4Z,9E,11E,13Z,15E,19Z-docosahexaenoic acid, methyl ester  
**Synonyms:** Aspirin-triggered-Resolvin D1 methyl ester, AT-RvD1 methyl ester, 17-*epi*-Resolvin D1 methyl ester, 17(R)-RvD1 methyl ester  
**MF:** C<sub>23</sub>H<sub>34</sub>O<sub>5</sub>  
**FW:** 390.5  
**Purity:** ≥95%  
**Stability:** ≥1 year at -80°C  
**Supplied as:** A solution in ethanol  
**UV/Vis.:** λ<sub>max</sub>: 302 nm



### Laboratory Procedures

For long term storage, we suggest that 17(R)-resolvin D1 (17(R)-RvD1) methyl ester be stored as supplied at -80°C. It should be stable for at least one year.

17(R)-RvD1 methyl ester is supplied as a solution in ethanol. To change the solvent, simply evaporate the 17(R)-RvD1 methyl ester under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of 17(R)-RvD1 methyl ester in these solvents is approximately 50 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free solution of 17(R)-RvD1 methyl ester is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 17(R)-RvD1 methyl ester in PBS, pH 7.2, is approximately 0.05 mg/ml. We do not recommend storing the aqueous solution for more than one day.

17(R)-RvD1 is an aspirin-triggered epimer of RvD1 (Item No. 10012554) that reduces human polymorphonuclear leukocyte transendothelial migration, the earliest event in acute inflammation, with equipotency to RvD1 (EC<sub>50</sub> = ~30 nM).<sup>1</sup> 17(R)-RvD1 exhibits a dose-dependent reduction in leukocyte infiltration in a mouse model of peritonitis with maximal inhibition of ~35% at a 100 ng dose.<sup>1</sup> In contrast to RvD1, the aspirin-triggered form resists rapid inactivation by eicosanoid oxidoreductases. 17(R)-RvD1 methyl ester is a methyl ester version of the free acid which may act as a lipophilic prodrug form that will alter its distribution and pharmacokinetic properties. The methyl ester moiety is susceptible to cleavage by intracellular esterases, leaving the free acid.

### Reference

1. Sun, Y.-P., Oh, S.F., Uddin, J., *et al.* Resolvin D1 and its aspirin-triggered 17R epimer stereochemical assignments, anti-inflammatory properties, and enzymatic inactivation. *J. Biol. Chem.* **282**(13), 9323-9334 (2007).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/9001072](http://www.caymanchem.com/catalog/9001072)

**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

#### SAFETY DATA

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