

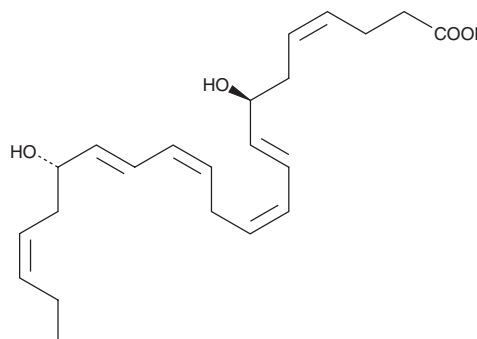
# PRODUCT INFORMATION



## Resolvin D5

Item No. 10007280

**CAS Registry No.:** 578008-43-2  
**Formal Name:** 7S,17S-dihydroxy-4Z,8E,10Z,13Z,15E,19Z-docosahexaenoic acid  
**Synonyms:** 7(S),17(S)-diHDHA, 7(S),17(S)-Resolvin D5, RvD5  
**MF:** C<sub>22</sub>H<sub>32</sub>O<sub>4</sub>  
**FW:** 360.5  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 244 nm  
**Supplied as:** A solution in ethanol  
**Storage:** -80°C  
**Stability:** ≥1 year



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

### Laboratory Procedures

Resolvin D5 (RvD5) is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. RvD5 is soluble in the organic solvent dimethyl formamide at a concentration of approximately 50 mg/ml.

RvD5 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of RvD5 should be diluted with the aqueous buffer of choice. The solubility of RvD5 in PBS (pH 7.2) is approximately 0.5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Resolvins are a family of potent lipid mediators derived from both eicosapentaenoic acid (EPA; Item No. 90110) and docosahexaenoic acid (DHA; Item No. 90310).<sup>1</sup> In addition to being anti-inflammatory, resolvins promote the resolution of the inflammatory response back to a non-inflamed state.<sup>2</sup> RvD5 is a DHA-derived resolvin generated by a double dioxygenation mechanism.<sup>3</sup> RvD5 has been identified in media from ionophore-stimulated trout brain cells, in human synovial fluid from patients with rheumatoid arthritis, and in exudates of bacterial infections in mice.<sup>4-6</sup> RvD5 stimulates the phagocytosis of *E. coli* by human macrophages, and RvD5 methyl ester enhances bacterial killing in mice inoculated with *E. coli*.<sup>6</sup>

### References

1. Hong, S., Gronert, K., Devchand, P.R., et al. *J. Biol. Chem.* **278**(17), 14677-14687 (2003).
2. Ariel, A. and Serhan, C.N. *Trends Immunol.* **28**(4), 176-183 (2007).
3. Serhan, C.N., Gotlinger, K., Hong, S., et al. *J. Immunol.* **176**(3), 1848-1859 (2006).
4. Hong, S., Tjonahen, E., Morgan, E.L., et al. *Prostaglandins Other Lipid Mediat.* **78**(1-4), 107-116 (2005).
5. Giera, M., Ioan-Facsinay, A., Toes, R., et al. *Biochim. Biophys. Acta* **1821**(11), 1415-1424 (2012).
6. Chiang, N., Fredman, G., Bäckhed, F., et al. *Nature* **484**(7395), 524-528 (2012).

#### 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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 08/23/2022

#### 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