

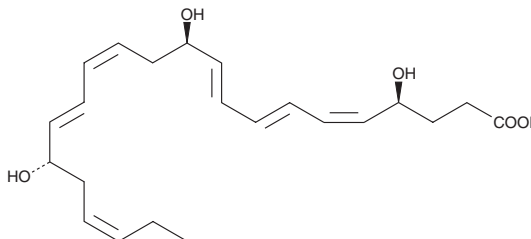
PRODUCT INFORMATION



Resolvin D3

Item No. 13834

CAS Registry No.: 916888-47-6
Formal Name: 4S,11R,17S-trihydroxy-5Z,7E,9E,13Z,15E,19Z-docosahexaenoic acid
Synonym: RvD3
MF: C₂₂H₃₂O₅
FW: 376.5
Purity: ≥95%
Supplied as: A solution in ethanol
Storage: -80°C
Stability: ≥1 year
UV/Vis.: λ_{max}: 238, 272, 282 nm



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

Laboratory Procedures

RvD3 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. It is recommended that this product be stored and handled in an ethanol solution. Resolvins can isomerize and degrade when put into freeze thaw conditions and/or in solvents such as dimethyl formamide or DMSO.

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 RvD3 is needed, it can be prepared by evaporating the RvD3 and directly dissolving the neat oil in aqueous buffers. The solubility of RvD3 in PBS, pH 7.2, is approximately 0.05 mg/ml. Aqueous solutions of RvD3 should be discarded immediately after use..

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).¹ In addition to being anti-inflammatory, resolvins promote the resolution of the inflammatory response.² RvD3 is a DHA-derived product first identified in mouse inflammatory exudates.³ It reduces neutrophil infiltration *in vivo* in both mouse peritonitis and dermal inflammation.³ In addition to suppressing leukocyte migration, RvD3 enhances macrophage phagocytosis and efferocytosis.⁴ Unlike other resolvins, RvD3 appears late in resolution in mouse peritonitis.^{4,5} Analytical and biological comparisons of synthetic RvD3 with endogenously derived RvD3 have confirmed its identity as matching the natural product.⁶

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., Hong, S., Gronert, K., *et al.* *J. Exp. Med.* **196**(8), 1025-1037 (2002).
4. Dalli, J., Winkler, J.W., Colas, R.A., *et al.* *Chem. Biol.* **20**, 188-201 (2015).
5. Serhan, C.N. *Nature* **510**(7503), 92-101 (2014).
6. Serhan, C. Personal Communication.

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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