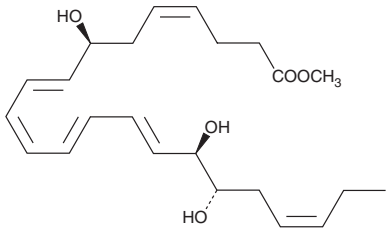
PRODUCT INFORMATION

Resolvin D2 methyl ester

Item No. 9001497

CAS Registry No.:	810668-53-2
Formal Name:	7S,16R,17S-trihydroxy-4Z,8E,10Z,12E,14E,19Z-docosahexaenoic acid, methyl ester
Synonyms:	7(S),16(R),17(S)-Resolvin D2 methyl ester, RvD2 methyl ester
MF:	$C_{23}H_{34}O_5$
FW:	390.5
Purity:	≥95%
UV/Vis.:	λ_{max}: 302 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 D2 (RvD2) methyl ester 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 RvD2 methyl ester is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of RvD2 methyl ester in PBS, pH 7.2, is approximately 0.05 mg/ml. Aqueous solutions of RvD2 methyl ester should be discarded immediately after use.

Description

RvD2 (Item No. 10007279) is a lipid mediator biosynthesized by the sequential oxygenation of docosahexaenoic acid by 15- and 5-lipoxygenase.[1] It evokes diverse anti-inflammatory effects which may mediate the resolution of inflammation.[2,3] RvD2 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.

References

1. Seki, H., Sasaki, T., Ueda, T., *et al*. Resolvins as regulators of the immune system. *ScientificWorldJournal* **10**, 818-831 (2010).
2. Serhan, C.N. Novel lipid mediators and resolution mechanisms in acute inflammation: To resolve or not? *Am. J. Pathol.* **177(4)**, 1576-1591 (2011).
3. Spite, M., Norling, L.V., Summers, L., *et al*. Resolvin D2 is a potent regulator of leukocytes and controls microbial sepsis. *Nature* **461(7268)**, 1287-1291 (2009).

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