

PRODUCT INFORMATION



17(R)-Resolvin D1-d₅

Item No. 11183

Formal Name: 7S,8R,17R-trihydroxy-4Z,9E,11E,13Z,15E,19Z-21,21,22,22,22-d₅ docosahexaenoic acid

Synonyms: Aspirin-triggered Resolvin D1-d₅, 17-*epi*-Resolvin D1-d₅, AT-RvD1-d₅, 17(R)-RvD1-d₅

MF: C₂₂H₂₇D₅O₅

FW: 381.5

Chemical Purity: ≥98% 17(R)-Resolvin D1

Deuterium

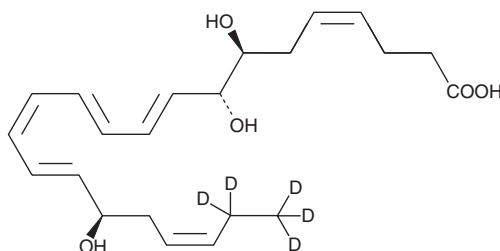
Incorporation: ≥99% deuterated forms (d₁-d₅); ≤1% d₀

UV/Vis.: λ_{max}: 289, 302, 316 nm

Supplied as: A 100 µg/ml 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

17(R)-Resolvin D1-d₅ (17(R)-RvD1-d₅) is intended for use as an internal standard for the quantification of RvD1 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).

17(R)-RvD1-d₅ is supplied as a solution in ethanol. To change the solvent, simply evaporate the 17(R)-RvD1-d₅ under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol and dimethyl formamide purged with an inert gas can be used. The solubility of 17(R)-RvD1-d₅ in these solvents is approximately 50 mg/ml.

Description

17(R)-RvD1 is formed by aspirin-acetylated COX-2-mediated oxidation of docosahexaenoic acid (DHA; Item No. 90310 | 17950) via a 17(R)-HDHA (Item No. 10005099) intermediate, which is oxygenated by 5-lipoxygenase (5-LO). 17(S)-RvD1 is formed from the sequential oxygenation of DHA by 15- and 5-LO via a 17(S)-hydroxy-DHA (17(S)-HDHA; Item No. 10009799) intermediate.¹

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).

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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