

# PRODUCT INFORMATION



## SPM D-series MaxSpec® LC-MS Mixture

Item No. 18702

**Synonym:** Specialized Pro-Resolving Mediator D-series LC-MS Mixture  
**Supplied as:** A solution in ethanol (100 ng/ml of each compound)  
**Fill volume:** >1 ml  
**Storage:** -80°C  
**Stability:** ≥5 years

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

### Description

This mixture contains several D-series resolvins (specialized pro-resolving mediators; SPMs) and their precursor, docosahexaenoic acid (DHA; Item No. 90310). The mixture is supplied in an amber ampule in which the headspace has been purged with argon to prevent lipid oxidation. This product has been designed for direct use in LC-MS applications. The solution may be serially diluted for preparation of calibrators and QC standards and/or used directly as a system suitability standard or tuning standard. After opening, we recommend that the mixture be transferred immediately to a 1 ml glass screw cap vial, to prevent solvent evaporation, and stored at -20°C. The mixture should be discarded after multiple freeze/thaw cycles.

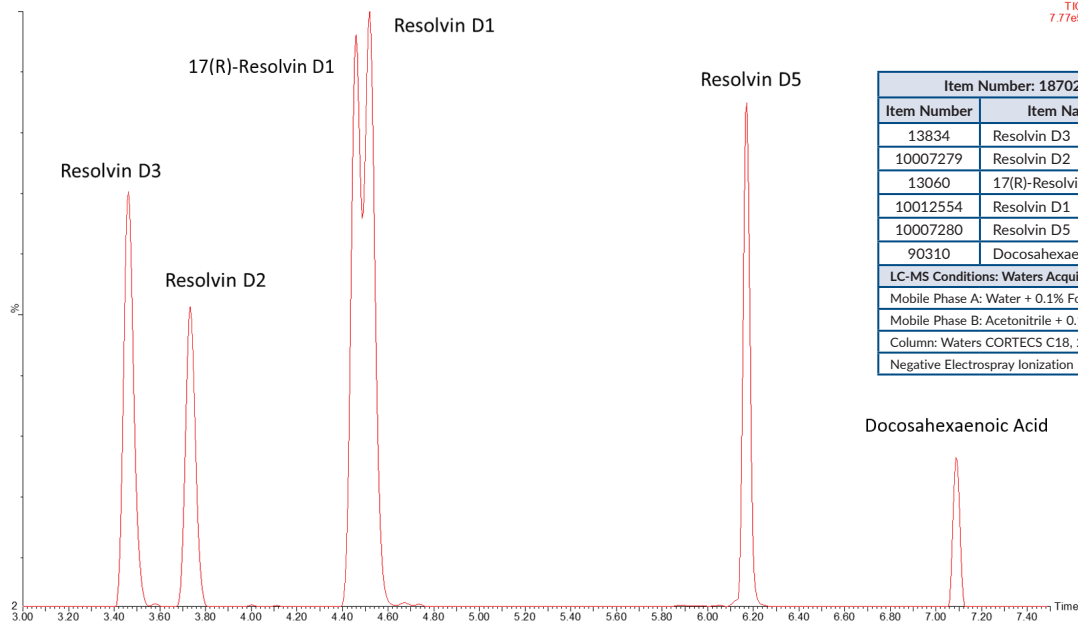
The fatty acids in this mixture represent the metabolic cascade of the D-series resolvins, a family of lipid mediators that promote the resolution of the inflammatory response back to a non-inflamed state.<sup>1</sup> D-Series resolvins are produced physiologically from the sequential oxygenation of DHA by 15- and 5-lipoxygenase.<sup>2</sup> 17(R)-Resolvin D1 (Item No. 13060) is an aspirin-triggered epimer of resolvin D1 (Item No. 10012554) that, unlike resolvin D1, resists rapid inactivation by eicosanoid oxidoreductases.<sup>3</sup>

### Contents

SPM D-series LCMS Mix

21APR2016\_SPM\_D\_series\_LCMS\_Mix\_QC\_025 Sm (Mn, 2x2)

MRM of 9 Channels ES-  
TIC  
7.77e5



Item Number: 18702		SPM D-series MaxSpec® LC-MS Mixture	
Item Number	Item Name	Formula Weight:	MS/MS Transition:
13834	Resolvin D3	376.5	375>147
10007279	Resolvin D2	376.5	375>175
13060	17(R)-Resolvin D1	376.5	375>215
10012554	Resolvin D1	376.5	375>141
10007280	Resolvin D5	360.5	359>199
90310	Docosahexaenoic Acid	328.5	327>229

LC-MS Conditions: Waters Acquity UPLC-Xevo TQ-Smicro  
Mobile Phase A: Water + 0.1% Formic Acid  
Mobile Phase B: Acetonitrile + 0.1% Formic Acid  
Column: Waters CORTECS C18, 2.1 x 100 mm, 1.6 µm  
Flow Rate: 400 µl/min  
Negative Electrospray Ionization  
MRM Scan

#### 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.

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## References

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1. Ariel, A. and Serhan, C.N. Resolvins and protectins in the termination program of acute inflammation. *Trends Immunol.* **28(4)**, 176-183 (2007).
2. Hong, S., Gronert, K., Devchand, P.R., *et al.* Novel docosatrienes and 17S-resolvins generated from docosahexaenoic acid in murine brain, human blood, and glial cells. Autacoids in anti-inflammation. *J. Biol. Chem.* **278(17)**, 14677-14687 (2003).
3. 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).

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