

Product Data Sheet

Product Name: Resolvin D1-d5

Cat. No.: GC48041

Chemical Properties

Cas. No. 1881277-32-2

SMILES O[C@@H](C/C=C\C([2H])([2H])C([2H])([2H])[2H])/C=C/C=C\C=C\C=C\C[C@@H](O)[C@@H](O)C/C=C\CCC(O)=O

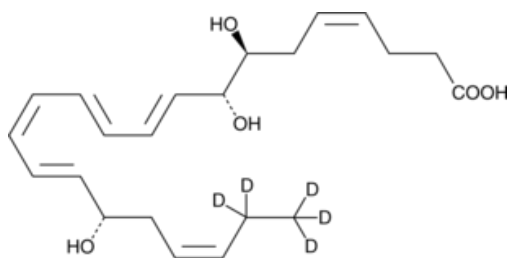
Formula C₂₂H₂₇D₅O₅ M.Wt 381.5

Solubility DMF: 50 mg/ml, Ethanol: 50 mg/ml, PBS (pH 7.2): .05 mg/ml Storage Store at -80°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Resolvin D1-d₅ (RvD1-d₅) is intended for use as an internal standard for the quantification of RvD1 by GC- or LC-mass spectrometry. Resolvins are a family of potent lipid mediators derived from both eicosapentaenoic acid and docosahexaenoic acid.¹ In addition to being anti-inflammatory, resolvins promote the resolution of the inflammatory response back to a non-inflamed state.² RvD1 is produced physiologically from the sequential oxygenation of DHA by 15- and 5-lipoxygenase.¹ A 17(R)-epimer of RvD1 can also be generated in aspirin-treated samples.³ Both RvD1 and its 17(R) configuration reduce human polymorphonuclear leukocyte (PMNL) transendothelial migration, the earliest event in acute inflammation, with EC₅₀ values of ~30 nM.⁴ RvD1 and its aspirin-triggered

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

form also exhibit a dose-dependent reduction in leukocyte infiltration in a mouse model of peritonitis with a maximal inhibition of ~35% at a 10-100 ng dose.⁴

1.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-inflammationJ. Biol. Chem.278(17)14677-14687(2003) 2.Ariel, A., and Serhan, C.N.Resolvins and protectins in the termination program of acute inflammationTRENDS in Immunology28(4)176-183(2007) 3.Serhan, C.N., Hong, S., Gronert, K., et al.Resolvins: A family of bioactive products of ω -3 fatty acid transformation circuits by aspirin treatment that counter proinflammation signalsJ. Exp. Med.196(8)1025-1037(2002) 4.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 inactivationThe Journal of Biological Chemistry282(13)9323-9334(2007)

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA