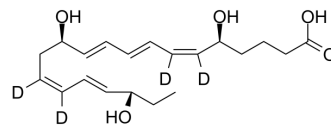


Resolvin E1-d4-1

Cat. No.:	HY-114041S1
CAS No.:	2714040-94-3
Molecular Formula:	C ₂₀ H ₂₆ D ₄ O ₅
Molecular Weight:	354.47
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Resolvin E1-d4-1 (RvE1-d4-1) is the deuterium labeled Resolvin E1. Resolvin E1 (RvE1), a potent endogenous pro-resolving mediator of inflammation, is derived from omega-3 fatty acid eicosapentaenoic acid (EPA). Resolvin E1 is endogenously biosynthesized from EPA in the presence of Aspirin during the spontaneous resolution phase of acute inflammation, where specific cell-cell interactions occur. Resolvin E1 possesses unique counterregulatory actions that inhibit polymorphonuclear leukocyte (PMN) transendothelial migration. Resolvin E1 also acts as a potent inhibitor of leukocyte infiltration, dendritic cell migration, and IL-12 production ^{[1][2]} .
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.
- [2]. Arita M, et al. Resolvin E1, an endogenous lipid mediator derived from omega-3 eicosapentaenoic acid, protects against 2,4,6-trinitrobenzene sulfonic acid-induced colitis. *Proc Natl Acad Sci U S A.* 2005 May 24;102(21):7671-6.
- [3]. Schwab JM, et al. Resolvin E1 and protectin D1 activate inflammation-resolution programmes. *Nature.* 2007 Jun 14;447(7146):869-74.
- [4]. Hasturk H, et al. Resolvin E1 regulates inflammation at the cellular and tissue level and restores tissue homeostasis in vivo. *J Immunol.* 2007 Nov 15;179(10):7021-9.

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

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