ALOX15 oxidises 18(S)-HEPE to 18(S)-RvE3

Hansen, TV., Jassal, B.

European Bioinformatics Institute, New York University Langone Medical Center, Ontario Institute for Cancer Research, Oregon Health and Science University.

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Introduction

Reactome is open-source, open access, manually curated and peer-reviewed pathway database. Pathway annotations are authored by expert biologists, in collaboration with Reactome editorial staff and cross-referenced to many bioinformatics databases. A system of evidence tracking ensures that all assertions are backed up by the primary literature. Reactome is used by clinicians, geneticists, genomics researchers, and molecular biologists to interpret the results of high-throughput experimental studies, by bioinformaticians seeking to develop novel algorithms for mining knowledge from genomic studies, and by systems biologists building predictive models of normal and disease variant pathways.

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Literature references

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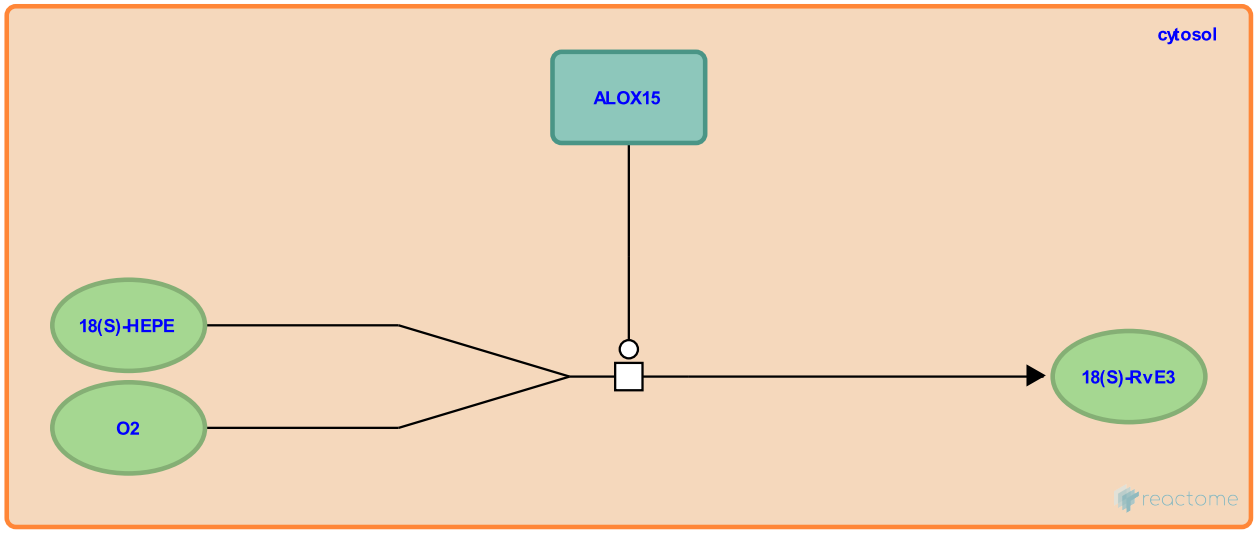
Stable identifier: R-HSA-9020610

Type: transition

Compartments: cytosol



Unlike resolvins E1 and E2, both of which are biosynthesised by neutrophils via the 5-lipoxygenase pathway, resolvin E3 (RvE3) is biosynthesised in eosinophils or resident macrophages via the 15-lipoxygenase (ALOX15) pathway. 18(S)-hydroxyeicosapentaenoic acid (18(S)-HEPE) is oxidised by ALOX15 (possibly through C13-hydrogen abstraction) into a number of dihydroxy-HEPEs including 17(R),18(S)-diHEPE (18(S)-RvE3) (Isobe et al. 2012, Isobe et al. 2013).

Literature references

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Editions

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