ALOX5 oxidises 18(S)-HEPE to 5(S)-Hp-18(S)-HEPE

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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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Fabregat, A., Jupe, S., Matthews, L., Sidiropoulos, K., Gillespie, M., Garapati, P. et al. (2018). The Reactome Pathway Knowledgebase. *Nucleic Acids Res, 46*, D649-D655. ↗

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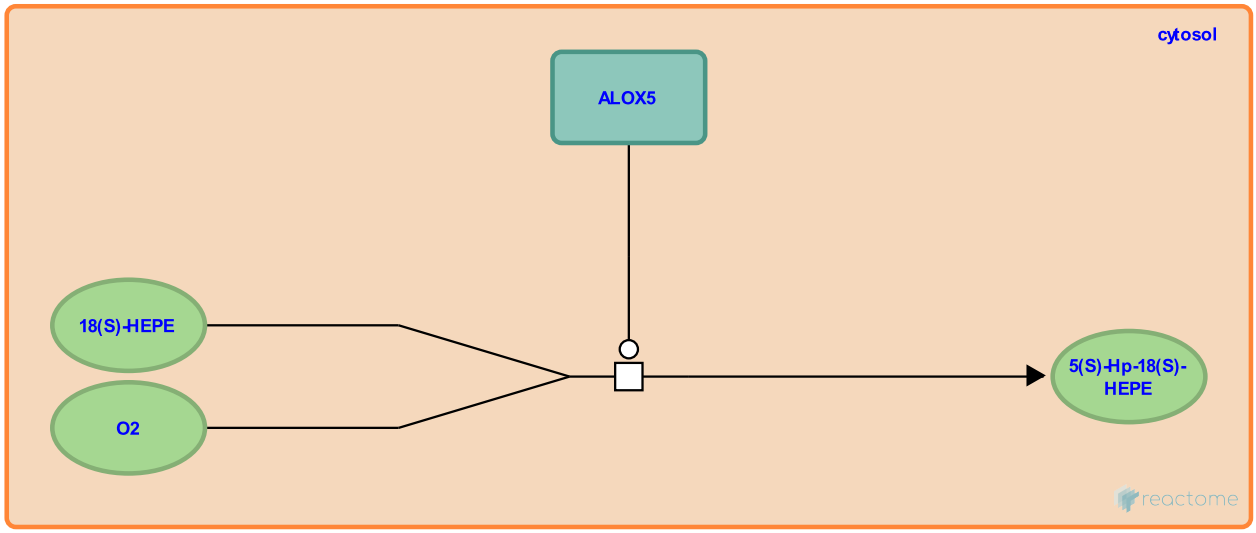
Stable identifier: R-HSA-9018858

Type: transition

Compartments: cytosol



Unlike resolvin E3, which is biosynthesised in eosinophils or resident macrophages via the 15-lipoxygenase (ALOX15) pathway, resolvins E1 and E2 are biosynthesised by neutrophils via the 5-lipoxygenase pathway. In neutrophils, ALOX5 oxidises 18(S)-hydroxyeicosapentaenoic acid (18(S)-HEPE) to 5(S)-hydroperoxy-18(S)-hydroxyeicosapentaenoic acid (5(S)-Hp-18(S)-HEPE) (Tjonahen et al. 2006, Oh et al. 2012).

Literature references

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Editions

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