

5S-HpETE is dehydrated to LTA4 by ALOX5

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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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Reactome database release: 88

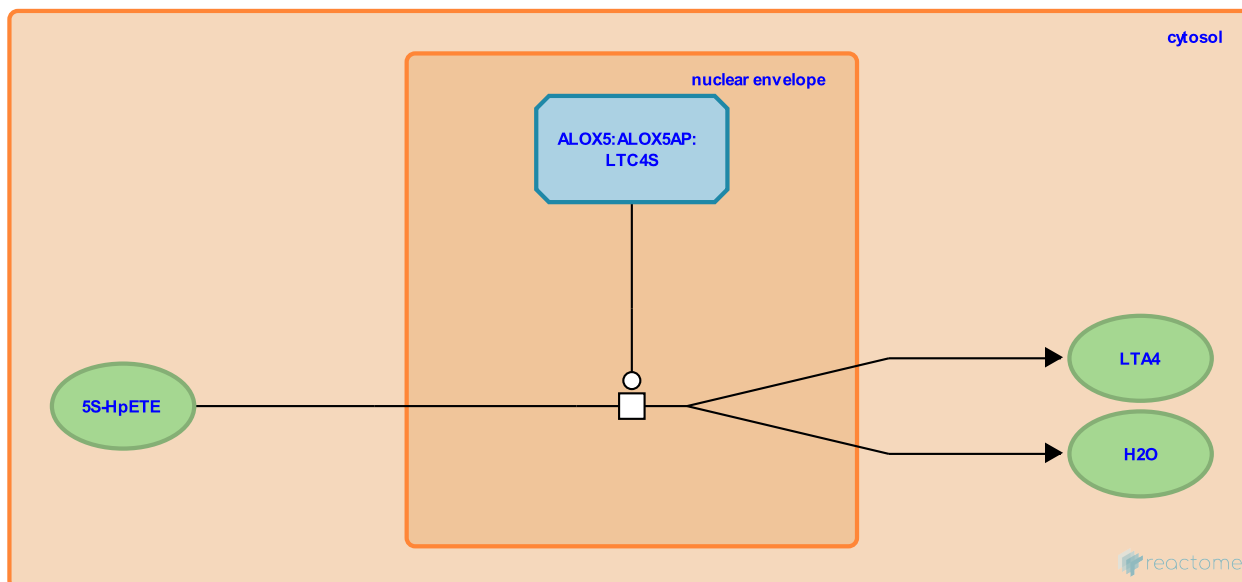
This document contains 1 reaction ([see Table of Contents](#))

5S-HpETE is dehydrated to LTA4 by ALOX5 [↗](#)

Stable identifier: R-HSA-266051

Type: transition

Compartments: cytosol, nuclear envelope



In the second step of the formation of leukotriene A4 (LTA4) from arachidonic acid, arachidonate 5-lipoxygenase (ALOX5) converts 5S-hydroperoxyeicosatetranoic acid (5S-HpETE) to an allylic epoxide, leukotriene A4 (LTA4) (Rouzer et al. 1988, Rouzer & Samuelsson 1987, Rouzer et al. 1986).

Literature references

Rouzer, CA., Samuelsson, B. (1987). Reversible, calcium-dependent membrane association of human leukocyte 5-lipoxygenase. *Proc Natl Acad Sci U S A*, 84, 7393-7. [↗](#)

Matsumoto, T., Rouzer, CA., Samuelsson, B. (1986). Single protein from human leukocytes possesses 5-lipoxygenase and leukotriene A4 synthase activities. *Proc Natl Acad Sci U S A*, 83, 857-61. [↗](#)

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Editions

2008-04-21	Edited	Jassal, B.
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