

Recombinant Mouse Arachidonate 12-lipoxygenase, His-tagged

Cat. No. Alox12-584M **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Recombinant Mouse Alox12 fused with N-terminal his-tagged protein, was expressed using the *baculovirus* system. MW = 76.4 kDa.

Species

Mouse

Source

Insect Cells

Description

12-Lipoxygenase(12-LO) catalyzes the formation of 12-HpETE from arachidonic acid. There are two main types of 12-LO, platelet-type and leukocyte-type, which share only 60% identity at the amino acid level and strongly differ in substrate specificity and enzyme kinetics. Leukocyte-type 12-LO has the ability to also produce 15-HpETE, however, platelet-type predominately forms 12-HpETE. Epidermal-type 12(S)- and 12(R)-LO enzymes have also been characterized, which catalyze the synthesis of their respective stereospecific 12-HETE products.

Purity

≥85%.

Formulation

50 mM sodium phosphate, pH 7.2, containing 100 mM sodium chloride and 20% glycerol.

Stability

≥6 months at -80°C; avoid freeze/thaw cycles by aliquoting the protein and storing at -80°C.

GENE INFORMATION

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Gene Name	Alox12 arachidonate 12-lipoxygenase [Mus musculus]
Synonyms	Alox12; arachidonate 12-lipoxygenase; P-12LO; Alox12p; 9930022G08Rik; arachidonate 12-lipoxygenase, 12S-type; 12S-LOX; 12S-lipoxygenase; OTTMUSP00000006289; platelet-type lipoxygenase 12; EC 1.13.11.31
Gene ID	11684
mRNA Refseq	NM_007440
Protein Refseq	NP_031466
UniProt ID	P39655
Chromosome Location	11 B3; 11 40.0 cM
Pathway	Arachidonic acid metabolism; Metabolic pathways
Function	arachidonate 12-lipoxygenase activity; iron ion binding; lipoxygenase activity; metal ion binding; oxidoreductase activity; oxidoreductase activity, acting on single donors with incorporation of molecular oxygen, incorporation of two atoms of oxygen

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