

Recombinant Full Length Human ALOX5 Protein, GST-tagged

Cat. No. ALOX5-1481HF **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human ALOX5 full-length ORF (NP_000689.1, 1 a.a. - 674 a.a.) recombinant protein with GST-tag at N-terminal.
Species	Human
Source	In Vitro Cell Free System
ProteinLength	674 amino acids
Description	This gene encodes a member of the lipoxygenase gene family and plays a dual role in the synthesis of leukotrienes from arachidonic acid. The encoded protein, which is expressed specifically in bone marrow-derived cells, catalyzes the conversion of arachidonic acid to 5(S)-hydroperoxy-6-trans-8,11,14-cis-eicosatetraenoic acid, and further to the allylic epoxide 5(S)-trans-7,9-trans-11,14-cis-eicosatetraenoic acid (leukotriene A₄). Leukotrienes are important mediators of a number of inflammatory and allergic conditions. Mutations in the promoter region of this gene lead to a diminished response to antileukotriene drugs used in the treatment of asthma and may also be associated with atherosclerosis and several cancers. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2012]
Molecular Mass	104.4 kDa
AA Sequence	MPSYTVTVAT GSQWFAGTDD YIYLSLVGSA GCSEKHLLDK PFYNDFERGA VDSYDVTVD EELGEIQLVRI EKRKYWLND WYLKYITLKT PHGDYIEFPC YRWITGDVEV VLRDGRAKLA RDDQIHILKQ HRRKELETRQ KQYRWMEWNP

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GFPLSIDAKC HKDLPRDIQF DSEKGVDFVL NYSKAMENLF INRFMHMFQS
 SWNDFADFEK IFVKISNTIS ERVMNHWQED LMFGYQFLNG CNPVLIRRCT
 ELPEKLPVTT EMVECSLERQ LSLEQEVQQG NIFIVDFELL DGIDANKTDP
 CTLQFLAAPI CLLYKNLANK IVPIAIQLNQ IPGDENPIFL PSDAKYDWLL
 AKIWVRSSDF HVHQTITHLL RTHLVSEVFG IAMYRQLPAV HPIFKLLVAH
 VRFTIAINTK AREQLICECG LFDKANATGG GGHVQMVQRA MKDLTYASLC
 FPEAIKARGM ESKEDIPYYF YRDDGLLVWE AIRTFTAEEV DIYYEGDQVV
 EEDPELQDFV NDVYVYGMRG RKSSGFPKSV KSREQLSEYL TVVIFTASAQ
 HAAVNFGQYD WCSWIPNAPP TMRAPPPTAK GVVITIEQIVD TLPDRGRSCW
 HLGAVWALSQ FQENELFLGM YPEEHFIEKP VKEAMARFRK NLEAIVSVIA
 ERNKKKQLPY YYLSPDRIPN SVAI

Applications

Enzyme-linked Immunoabsorbent Assay; Western Blot (Recombinant protein);
 Antibody Production; Protein Array

Storage

Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.

Storage Buffer

50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

GENE INFORMATION

Gene Name

[ALOX5 arachidonate 5-lipoxygenase \[Homo sapiens \]](#)

Official Symbol

[ALOX5](#)

Synonyms

ALOX5; arachidonate 5-lipoxygenase; 5 LOX; leukotriene A4 synthase; arachidonic acid 5-lipoxygenase; arachidonic 5-lipoxygenase alpha-10 isoform; arachidonic 5-lipoxygenase delta-13 isoform; arachidonic 5-lipoxygenase delta-p10 isoform; arachidonic 5-lipoxygenase delta-10-13 isoform; 5-LO; 5LPG; LOG5; 5-LOX; MGC163204

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Gene ID	240
mRNA Refseq	NM_000698
Protein Refseq	NP_000689
MIM	152390
UniProt ID	P09917

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