

# Recombinant Human ALOX5 Protein, His-tagged

**Cat. No.** ALOX5-120H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| <b>Product Overview</b> | Recombinant Human ALOX5 Protein (Met1-Ile674) with N-His tag was expressed in E. coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>ProteinLength</b>    | Met1-Ile674                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Description</b>      | <p>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 A<sub>4</sub>). 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.</p> |
| <b>Form</b>             | Freeze-dried powder                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Molecular Mass</b>   | Predicted Molecular Mass: 81.7 kDa<br>Accurate Molecular Mass: 82 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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|                       |                                                                                                                                                                                                                                                                                                                                              |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>         | > 90%                                                                                                                                                                                                                                                                                                                                        |
| <b>Applications</b>   | Positive Control; Immunogen; SDS-PAGE; WB.                                                                                                                                                                                                                                                                                                   |
| <b>Stability</b>      | The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 centigrade for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition. |
| <b>Storage</b>        | Avoid repeated freeze/thaw cycles. Store at 2-8 centigrade for one month. Aliquot and store at -80 centigrade for 12 months.                                                                                                                                                                                                                 |
| <b>Storage Buffer</b> | 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.                                                                                                                                                                                                                                          |
| <b>Reconstitution</b> | Reconstitute in sterile water to a concentration of 0.1-1.0 mg/mL. Do not vortex.                                                                                                                                                                                                                                                            |

## GENE INFORMATION

|                        |                                                                                                                                                                                                              |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | ALOX5 arachidonate 5-lipoxygenase [ Homo sapiens (human) ]                                                                                                                                                   |
| <b>Official Symbol</b> | ALOX5                                                                                                                                                                                                        |
| <b>Synonyms</b>        | ALOX5; arachidonate 5-lipoxygenase; 5-LO; 5-lipoxygenase; 5 - Lipoxygenase; LOX5A; polyunsaturated fatty acid 5-lipoxygenase; LOX-5; arachidonic acid 5-lipoxygenase; leukotriene A4 synthase; EC 1.13.11.34 |
| <b>Gene ID</b>         | 240                                                                                                                                                                                                          |
| <b>mRNA Refseq</b>     | NM_000698                                                                                                                                                                                                    |

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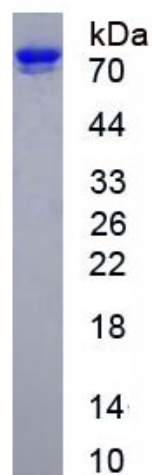
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**Protein Refseq** NP\_000689

**MIM** 152390

**UniProt ID** P09917



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