

Product datasheet for **SC330377**

5 Lipoxygenase (ALOX5) (NM_001256154) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	5 Lipoxygenase (ALOX5) (NM_001256154) Human Untagged Clone
Tag:	Tag Free
Symbol:	ALOX5
Synonyms:	5-LO; 5-LOX; 5LPG; LOG5
Vector:	pCMV6-Entry (PS100001)
Fully Sequenced ORF:	>SC330377 representing NM_001256154. Blue=Insert sequence Red=Cloning site Green=Tag(s)

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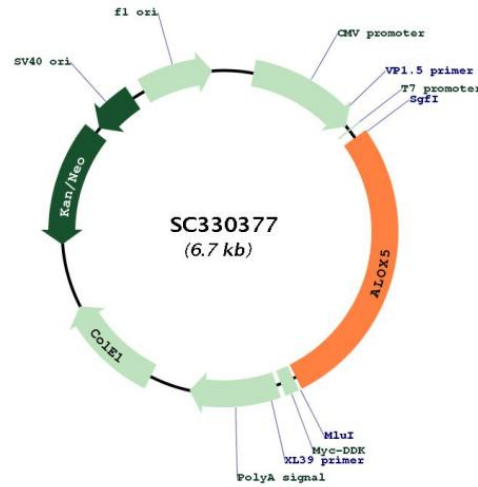
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Restriction Sites: SgfI-MluI

Plasmid Map:



ACCN: NM_001256154

Insert Size: 1854 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_001256154.1](#)

RefSeq Size: 2410 bp

RefSeq ORF: 1854 bp

Locus ID: 240

UniProt ID: [P09917](#)

Cytogenetics: 10q11.21

Protein Families: Druggable Genome

Protein Pathways: Arachidonic acid metabolism, Metabolic pathways

MW: 71.6 kDa

Gene Summary:

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]

Transcript Variant: This variant (3) lacks an in-frame exon in the 3' coding region, compared to variant 1. The resulting isoform (3) is shorter than isoform 1.