

Product datasheet for **RC217259**

5 Lipoxygenase (ALOX5) (NM_000698) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	5 Lipoxygenase (ALOX5) (NM_000698) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	5 Lipoxygenase
Synonyms:	5-LO; 5-LOX; 5LPG; LOG5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>RC217259 representing NM_000698
Red=Cloning site Blue=ORF Green=Tags(s)

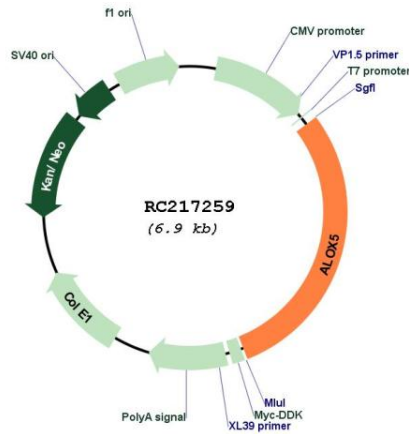
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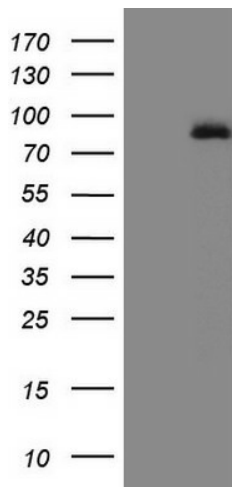
ACGCGTACGCGGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
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Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_000698.5
RefSeq Size:	2568 bp
RefSeq ORF:	2025 bp
Locus ID:	240
UniProt ID:	P09917
Cytogenetics:	10q11.21
Domains:	lipoxygenase, PLAT
Protein Families:	Druggable Genome
Protein Pathways:	Arachidonic acid metabolism, Metabolic pathways
MW:	77.8 kDa
Gene Summary:	<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 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]</p>

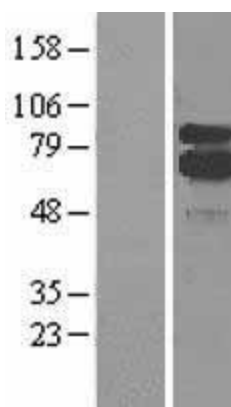
Product images:



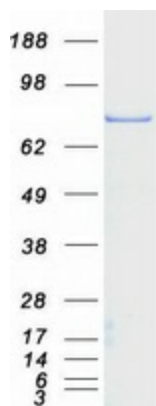
Circular map for RC217259



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ALOX5 (Cat# RC217259, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ALOX5 (Cat# [TA807013])(1:2000). Positive lysates [LY400234] (100ug) and [LC400234] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400234]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217259 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ALOX5 protein (Cat# [TP317259]). The protein was produced from HEK293T cells transfected with ALOX5 cDNA clone (Cat# RC217259) using MegaTran 2.0 (Cat# [TT210002]).