

Product datasheet for **TR314820**

5 Lipoxygenase (ALOX5) Human shRNA Plasmid Kit (Locus ID 240)

Product data:

Product Type:	shRNA Plasmids
Product Name:	5 Lipoxygenase (ALOX5) Human shRNA Plasmid Kit (Locus ID 240)
Locus ID:	240
Synonyms:	5-LO; 5-LOX; 5LPG; LOG5
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	ALOX5 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 240). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	NM_000698 , NM_001256153 , NM_001256154 , NM_001320861 , NM_001320862 , NM_000698.1 , NM_000698.2 , NM_000698.3 , NM_000698.4 , NM_001256154.1 , NM_001256154.2 , NM_001256153.1 , NM_001256153.2 , BC034464 , BC040450 , BC130332 , BC132677 , BC143985 , BC143986 , BM153780 , NM_001256153.3 , NM_000698.5
UniProt ID:	P09917
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]
shRNA Design:	These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact techsupport@origene.com . If you need a special design or shRNA sequence, please utilize our custom shRNA service .



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**Performance
Guaranteed:**

OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at techsupport@origene.com. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).