Phospho-5 Lipoxygenase (Ser523) Blocking Peptide – The purity is >90%,tested by HPLC and MS. Purity

PRODUCT OVERVIEW

Product Name	5 Lipoxygenase (ALOX5), Blocking Peptide
Full Product Name	Phospho-5 Lipoxygenase (Ser523) Blocking Peptide
Product Gene Name	ALOX5 blocking peptide
Product Synonym Names	5 Lipoxygenase; 5 LO; 5 LOX; 5-lipoxygenase; 5-LO; 5-LOX; 5LOX; 5LPG; ALOX 5; Alox5; Arachidonate 5 lipoxygenase; Arachidonate 5-lipoxygenase; arachidonic 5-lipoxygenase alpha-10 isoform; arachidonic 5-lipoxygenase delta-10-13 isoform; arachidonic 5-lipoxygenase delta-13 isoform; arachidonic 5-lipoxygenase delta-p10 isoform; Arachidonic acid 5 lipoxygenase; Leukotriene A4 synthase; LOG 5; LOG5; LOX5_HUMAN; MGC163204
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 10 mg/ml.
Purity/Purification	The purity is >90%,tested by HPLC and MS.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	5 Lipoxygenase (Ser523) peptide (MBS9616186) is used for blocking the activity of 5 Lipoxygenase (Ser523) antibody (MBS9612905)
Molecular Weight	77,983 Da
Chromosome Location	Chromosome: 10; NC_000010.10 (45869624..45941567). Location: 10q11.2
OMIM	152390
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Notes	For phospho antibody, we provide phospho peptide (0.5mg) and non-phospho peptide (0.5mg)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for ALOX5 blocking peptide	Blocking/Control
Related Product Information for ALOX5 blocking peptide	Blocking peptides are peptides that bind specifically to the target antibody and block antibody binding. These peptide usually contains the epitope recognized by the antibody. Antibodies bound to the blocking peptide no longer bind to the epitope on the target protein. This mechanism is useful when non-specific binding is an issue, for example, in Western blotting (immunoblot) and immunohistochemistry (IHC). By comparing the staining from the blocked antibody versus the antibody alone, one can see which staining is specific; Specific binding will be absent from the western blot or immunostaining performed with the neutralized antibody.
Other Notes	Small volumes of ALOX5 blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for ALOX5 purchase	MBS9616186 is a blocking peptide targeting ALOX5. Also known as Phospho-5 Lipoxygenase (Ser523) Blocking Peptide.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ALOX5. It may not necessarily be applicable to this product.

NCBI GI #	4502057

NCBI GeneID	240
NCBI Accession #	NP_000689.1
UniProt Primary Accession #	P09917
UniProt Secondary Accession #	Q5JQ14
UniProt Related Accession #	P09917
GenBank Nucleotide #	NM_000698.3
NCBI Official Full Name	arachidonate 5-lipoxygenase isoform 1
NCBI Official Synonym Full Names	arachidonate 5-lipoxygenase
NCBI Official Symbol	ALOX5
NCBI Official Synonym Symbols	5-LO; 5LPG; LOG5; 5-LOX
UniProt Protein Name	Arachidonate 5-lipoxygenase
Protein Family	Arachidonate 5-lipoxygenase
UniProt Gene Name	ALOX5
UniProt Synonym Gene Names	LOG5; 5-LO
UniProt Entry Name	LOX5_HUMAN
NCBI Protein Information	arachidonate 5-lipoxygenase; LOX-5; 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-lipoxygenas
NCBI Summary for ALOX5	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-eicosatetrenoic 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]
UniProt Comments for ALOX5	5-LO: arachidonate 5-lipoxygenase. Arachidonic acid promotes its phosphorylation by p38 MAPK-regulated MAPKAP kinases. Upregulated in glioblastoma multiforme and colon, pancreatic and bladder cancer. Protein type: Lipid Metabolism - arachidonic acid; Nuclear envelope; Oxidoreductase; Lipid Metabolism - linoleic acid; EC 1.13.11.34 Chromosomal Location of Human Ortholog: 10q11.2 Cellular Component: extracellular space; nuclear membrane; nuclear matrix; nuclear envelope lumen; nuclear envelope; cytosol Molecular Function: protein binding; iron ion binding; arachidonate 5-lipoxygenase activity Biological Process: leukotriene biosynthetic process; leukotriene production during acute inflammatory response; lipoxygenase pathway; arachidonic acid metabolic process; leukotriene metabolic process Disease: Asthma, Susceptibility To
Research Articles on ALOX5	**1.** The aim of this study was to evaluate the immunohistochemical expression of 5-LOX pathway proteins in oesophageal adenocarcinoma and its premalignant lesion, Barrett's metaplasia

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