PLA2G2D Antibody (C-Term) Blocking Peptide

PRODUCT OVERVIEW

Product Name	PLA2G2D, Blocking Peptide
Full Product Name	PLA2G2D Antibody (C-term) Blocking peptide
Product Gene Name	PLA2G2D blocking peptide
Product Synonym Gene Name	SPLASH
Product Synonym Names	Group IID secretory phospholipase A2; GIID sPLA2; sPLA2-IID; PLA2IID; Phosphatidylcholine 2-acylhydrolase 2D; Secretory-type PLA; stroma-associated homolog; PLA2G2D; SPLASH
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 1 mg/ml.
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	PLA2G2D peptide (MBS9218184) is used for blocking the activity of PLA2G2D antibody (MBS9207696)
OMIM	605630
Function	Secretory calcium-dependent phospholipase A2 that primarily targets extracellular lipids, exerting anti-inflammatory and immunosuppressive functions (PubMed:10455175, PubMed: 10681567). Hydrolyzes the ester bond of the fatty acyl group attached at sn-2 position of phospholipids (phospholipase A2 activity) with preference for phosphatidylethanolamines and phosphatidyl glycerols overphosphatidylcholines (PubMed: 10455175). In draining lymph nodes, selectively hydrolyzes diacyl and alkenyl forms of phosphatidylethanolamines, releasing omega-3 polyunsaturated fatty acids (PUFAs) such as eicosapentaenoate and docosahexaenoate that are precursors of the anti-inflammatory lipid mediators, resolvins (By similarity). During the resolution phase of acute inflammation drives docosahexaenoate-derived resolvin D1 synthesis, which suppresses dendritic cell activation and T-helper 1 immune response (By similarity). May act in an autocrine and paracrine manner (By similarity). Via a mechanism independent of its catalytic activity, promotes differentiation of regulatory T cells (Tregs) and participates in the maintenance of immune tolerance (By similarity). May contribute to lipid remodeling of cellular membranes and generation of lipid mediators involved in pathogen clearance. Displays bactericidal activity against Gram-positive bacteria by directly hydrolyzing phospholipids of the bacterial membrane (By similarity).
Cellular Location	Secreted.
Tissue Location	Highly expressed in pancreas and spleen and less abundantly in colon, thymus, placenta, small intestine, and prostate
Related Product Information for PLA2G2D blocking peptide	PA2 catalyzes the calcium-dependent hydrolysis of the 2- acyl groups in 3-sn-phosphoglycerides. L-alpha-1-palmitoyl-2- linoleoyl phosphatidylethanolamine is more efficiently hydrolyzed than the other phospholipids examined.
Other Notes	Small volumes of PLA2G2D 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 PLA2G2D purchase	MBS9218184 is a blocking peptide targeting PLA2G2D. Also known as PLA2G2D Antibody (C-term) Blocking peptide.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PLA2G2D. It may not necessarily be applicable to this product.

NCBI GI #	20139286
NCBI GeneID	26279

NCBI Accession #	Q9UNK4.2
UniProt Primary Accession #	Q9UNK4
UniProt Secondary Accession #	Q9UK01; A8K2Z1; B1AEL9
UniProt Related Accession #	Q9UNK4
NCBI Official Full Name	Group IID secretory phospholipase A2
NCBI Official Synonym Full Names	phospholipase A2 group IID
NCBI Official Symbol	PLA2G2D
NCBI Official Synonym Symbols	SPLASH; sPLA2S; PLA2IID; sPLA2-IID
UniProt Protein Name	Group IID secretory phospholipase A2
UniProt Synonym Protein Names	PLA2IID; Phosphatidylcholine 2-acylhydrolase 2D; Secretory-type PLA, stroma-associated homolog
Protein Family	Group IID secretory phospholipase
UniProt Gene Name	PLA2G2D
UniProt Synonym Gene Names	SPLASH; GIID sPLA2; sPLA2-IID
UniProt Entry Name	PA2GD_HUMAN
NCBI Protein Information	group IID secretory phospholipase A2
NCBI Summary for PLA2G2D	This gene encodes a secreted member of the phospholipase A2 family, and is found in a cluster of related family members on chromosome 1. Phospholipase A2 family members hydrolyze the sn-2 fatty acid ester bond of glycerophospholipids to produce lysophospholipids and free fatty acid. This gene may be involved in inflammation and immune response, and in weight loss associated with chronic obstructive pulmonary disease. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Nov 2012]
UniProt Comments for PLA2G2D	PLA2G2D: PA2 catalyzes the calcium-dependent hydrolysis of the 2- acyl groups in 3-sn-phosphoglycerides. L-alpha-1-palmitoyl-2- linoleoyl phosphatidylethanolamine is more efficiently hydrolyzed than the other phospholipids examined. Belongs to the phospholipase A2 family. Protein type: EC 3.1.1.4; Phospholipase; Secreted; Lipid Metabolism - glycerophospholipid; Lipid Metabolism - ether lipid; Secreted, signal peptide; Lipid Metabolism - linoleic acid; Lipid Metabolism - arachidonic acid; Lipid Metabolism - alpha-linolenic acid Chromosomal Location of Human Ortholog: 1p36.12 Cellular Component: extracellular region Molecular Function: phospholipase A2 activity Biological Process: inflammatory response; phosphatidic acid biosynthetic process; phospholipid metabolic process
Research Articles on PLA2G2D	**1.** found to induce PLA2G2D expression in mice and in human monocyte-derived macrophages
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