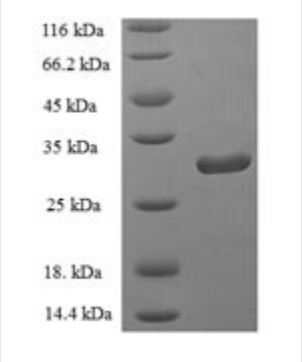
Group IID Secretory Phospholipase A2 (PLA2G2D) Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	Group IID secretory phospholipase A2 (PLA2G2D), Recombinant Protein
Full Product Name	Recombinant Human Group IID secretory phospholipase A2
Product Gene Name	PLA2G2D recombinant protein
Product Synonym Names	PLA2IID; Phosphatidylcholine 2-acylhydrolase 2D; Secretory-type PLA, stroma-associated homolog
Sequence	ILNLNKMVKQ VTGKMPILSY WPYGCHCGLG GRGQPKDATD WCCQTHDCCY DHLKTQGCSI YKDYYRYNFS QGNIHCSDKG SWCEQQLCAC DKEVAFCLKR NLDTYQKRLR FYWRPHCRGQ TPGC
Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)
Preparation and Storage	Store at -20 degree C, for extended storage, conserve at -20 degree C or -80 degree C.
Molecular Weight	30.5 kDa
Sequence Positions	22-145aa; Partial
Tag Information	This protein contains an N-terminal tag and may also contain a C-terminal tag. Tag types are determined by various factors including tag-protein stability, please inquire for tag information.
Sterility	Sterile filter available upon request.
Endotoxin	Low endotoxin available upon request.
OMIM	605630
3D Structure	ModBase 3D Structure for Q9UNK4
Production Note	**Special Offer:** The E Coli host-expressed protein is manufactured from a stock plasmid containing the protein gene. E Colihost-expressed protein is stocked in different unit sizes ranging from as small as 10 ug to as large as 1 mg. Bulk inventory is also available. The E Coli host-expressed protein has been ordered over and over again by researchers and has stood the test of time as both a robust protein and important target for the research community. It is part of our new program to make our most popular protein targets and corresponding hosts available in expanded unit sizes and with a quick processing time. Select E Coli host-expressed protein for the fastest delivery among all hosts. Please contact our **technical support team** **or email to** **support@mybiosource.com** for more details.
Product Categories/Family for PLA2G2D recombinant protein	Metabolism
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for PLA2G2D recombinant protein	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.

Product References and Citations for PLA2G2D recombinant protein	Cloning and characterization of novel mouse and human secretory phospholipase A2s.Ishizaki J., Suzuki N., Higashino K., Yokota Y., Ono T., Kawamoto K., Fujii N., Arita H., Hanasaki K.J. Biol. Chem. 274:24973-24979(1999) SPLASH (PLA(2) IID) , a novel member of phospholipase A2 family, is associated with lymphotoxin-deficiency.Shakhov A.N., Rubtsov A.V., Lyakhov I.G., Tumanov A.V., Nedospasov S.A.Genes Immun. 1:191-199(2000) Complete sequencing and characterization of 21,243 full-length human cDNAs.Ota T., Suzuki Y., Nishikawa T., Otsuki T., Sugiyama T., Irie R., Wakamatsu A., Hayashi K., Sato H., Nagai K., Kimura K., Makita H., Sekine M., Obayashi M., Nishi T., Shibahara T., Tanaka T., Ishii S., Yamamoto J., Saito K., Kawai Y., Isono Y., Nakamura Y., Nagahari K., Murakami K., Yasuda T., Iwayanagi T., Wagatsuma M., Shiratori A., Sudo H., Hosoiri T., Kaku Y., Kodaira H., Kondo H., Sugawara M., Takahashi M., Kanda K., Yokoi T., Furuya T., Kikkawa E., Omura Y., Abe K., Kamihara K., Katsuta N., Sato K., Tanikawa M., Yamazaki M., Ninomiya K., Ishibashi T., Yamashita H., Murakawa K., Fujimori K., Tanai H., Kimata M., Watanabe M., Hiraoka S., Chiba Y., Ishida S., Ono Y., Takiguchi S., Watanabe S., Yosida M., Hotuta T., Kusano J., Kanehori K., Takahashi-Fujii A., Hara H., Tanase T.-O., Nomura Y., Togiya S., Komai F., Hara R., Takeuchi K., Arita M., Imose N., Musashino K., Yuuki H., Oshima A., Sasaki N., Aotsuka S., Yoshikawa Y., Matsunawa H., Ichihara T., Shiohata N., Sano S., Moriya S., Momiyama H., Satoh N., Takami S., Terashima Y., Suzuki O., Nakagawa S., Senoh A., Mizoguchi H., Goto Y., Shimizu F., Wakebe H., Hishigaki H., Watanabe T., Sugiyama A., Takemoto M., Kawakami B., Yamazaki M., Watanabe K., Kumagai A., Itakura S., Fukuzumi Y., Fujimori Y., Komiyama M., Tashiro H., Tanigami A., Fujiwara T., Ono T., Yamada K., Fujii Y., Ozaki K., Hirao M., Ohmori Y., Kawabata A., Hikiji T., Kobatake N., Inagaki H., Ikema Y., Okamoto S., Okitani R., Kawakami T., Noguchi S., Itoh T., Shigeta K., Senba T., Matsumura K., Nakajima Y., Mizuno T., Morinaga M., Sasaki M., Togashi T., Oyama M., Hata H., Watanabe M., Komatsu T., Mizushima-Sugano J., Satoh T., Shirai Y., Takahashi Y., Nakagawa K., Okumura K., Nagase T., Nomura N., Kikuchi H., Masuho Y., Yamashita R., Nakai K., Yada T., Nakamura Y., Ohara O., Isogai T., Sugano S.Nat. Genet. 36:40-45(2004) NIEHS SNPs programThe DNA sequence and biological annotation of human chromosome 1.Gregory S.G., Barlow K.F., McLay K.E., Kaul R., Swarbreck D., Dunham A., Scott C.E., Howe K.L., Woodfine K., Spencer C.C.A., Jones M.C., Gillson C., Searle S., Zhou Y., Kokocinski F., McDonald L., Evans R., Phillips K., Atkinson A., Cooper R., Jones C., Hall R.E., Andrews T.D., Lloyd C., Ainscough R., Almeida J.P., Ambrose K.D., Anderson F., Andrew R.W., Ashwell R.I.S., Aubin K., Babbage A.K., Bagguley C.L., Bailey J., Beasley H., Bethel G., Bird C.P., Bray-Allen S., Brown J.Y., Brown A.J., Buckley D., Burton J., Bye J., Carder C., Chapman J.C., Clark S.Y., Clarke G., Clee C., Cobley V., Collier R.E., Corby N., Coville G.J., Davies J., Deadman R., Dunn M., Earthrowl M., Ellington A.G., Errington H., Frankish A., Frankland J., French L., Garner P., Garnett J., Gay L., Ghori M.R.J., Gibson R., Gilby L.M., Gillett W., Glithero R.J., Grafham D.V., Griffiths C., Griffiths-Jones S., Grocock R., Hammond S., Harrison E.S.I., Hart E., Haugen E., Heath P.D., Holmes S., Holt K., Howden P.J., Hunt A.R., Hunt S.E., Hunter G., Isherwood J., James R., Johnson C., Johnson D., Joy A., Kay M., Kershaw J.K., Kibukawa M., Kimberley A.M., King A., Knights A.J., Lad H., Laird G., Lawlor S., Leongamornlert D.A., Lloyd D.M., Loveland J., Lovell J., Lush M.J., Lyne R., Martin S., Mashreghi-Mohammadi M., Matthews L., Matthews N.S.W., McLaren S., Milne S., Mistry S., Moore M.J.F., Nickerson T., O'Dell C.N., Oliver K., Palmeiri A., Palmer S.A., Parker A., Patel D., Pearce A.V., Peck A.I., Pelan S., Phelps K., Phillimore B.J., Plumb R., Rajan J., Raymond C., Rouse G., Saenphimmachak C., Sehra H.K., Sheridan E., Shownkeen R., Sims S., Skuce C.D., Smith M., Steward C., Subramanian S., Sycamore N., Tracey A., Tromans A., Van Helmond Z., Wall M., Wallis J.M., White S., Whitehead S.L., Wilkinson J.E., Willey D.L., Williams H., Wilming L., Wray P.W., Wu Z., Coulson A., Vaudin M., Sulston J.E., Durbin R.M., Hubbard T., Wooster R., Dunham I., Carter N.P., McVean G., Ross M.T., Harrow J., Olson M.V., Beck S., Rogers J., Bentley D.R.Nature 441:315-321(2006)
Other Notes	Small volumes of PLA2G2D recombinant protein 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	MBS1281677 is a recombinant protein targeting PLA2G2D. Also known as Recombinant Human Group IID secretory phospholipase A2. Host: E Coli or Yeast or Baculovirus or Mammalian Cell.



SDS-PAGE of PLA2G2D recombinant protein

ADDITIONAL DETAILS

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

NCBI GI #	425854812
NCBI GeneID	26279
NCBI Accession #	NP_001258743.1
UniProt Primary Accession #	Q9UNK4
UniProt Secondary Accession #	Q9UK01; A8K2Z1; B1AEL9
UniProt Related Accession #	Q9UNK4
GenBank Nucleotide #	NM_001271814.1
NCBI Official Full Name	group IID secretory phospholipase A2 isoform 2
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: Secreted, signal peptide; Lipid Metabolism - glycerophospholipid; Phospholipase; Secreted; Lipid Metabolism - linoleic acid; EC 3.1.1.4; Lipid Metabolism - arachidonic acid; Lipid Metabolism - ether lipid; Lipid Metabolism - alpha-linolenic acid Chromosomal Location of Human Ortholog: 1p36.12 Cellular Component: extracellular region Molecular Function: calcium ion binding; heparan sulfate proteoglycan binding; heparin binding; phospholipase A2 activity Biological Process: CD4-positive, CD25-positive, alpha-beta regulatory T cell differentiation; glycerophospholipid biosynthetic process; inflammatory response; lipid catabolic process; negative regulation of T cell proliferation; 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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