

Recombinant Human PLA2R Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50793

Size: 10ug, 100ug

Protein Name: Secretory phospholipase A2 receptor (PLA2-R) (PLA2R) (180 kDa secretory phospholipase A2 receptor) (C-type lectin domain family 13 member C) (M-type receptor) [Cleaved into: Soluble secretory phospholipase A2 receptor (Soluble PLA2-R) (Soluble PLA2R)]

Synonym: PLA2R1, CLEC13C

UniProt ID: Q13018

UniProt Link: www.uniprot.org/uniprotkb/Q13018/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 1463 AA

Molecular Weight: 169 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MLLSPSLLLLLLGAPRGCAEGVAAALTPERLLEWQDKGIFVIQSESLKKCIQAGKSVLTLENCKQAN
KHMLWKWVSNHGLFNIGGSGCLGLNFSAPEQPLSLYECDSTLVSLRWRCNRKMITGPLQYSVQVA
HDNTVVASRKYIHKWISYSGGGDICEYLHKDLHTIKGNTHGMPCMFQYNHQQWHHECTREGRE
DDLLWCATTSRYERDEKWGFCPDPTSAEVGCDTIWEKDLNSHICYQFNLLSSLWSSEAHSSCQMQ
GGTLLSITDETEENFIREHMSSKTVEVWMGLNQLDEHAGWQWSDGTPLNLYLNWSPEVNFEPFVED
HCGTFSSFMPSAWRSRDCESTLPYICKKYLNHIDHEIVEKDAWKYYATHCEPGWNPYNRNCYKLQK
EETWHEALRSCQADNSALIDITSLAEVEFLVTLLGDENASETWIGLSSNKIPVSFEWSNDSSVIFTN
WHTLEPHIFPNRSQLCVSAEQSEGHWKVKNCERLFYICKKAGHVLSDAESGCQEGWERHGGFCY
KIDTVLRSFDQASSGYCPCPALVTITNRFQAFITSLISSVVKMKDSYFWIALQDQNDTGEYTWKPVG
QKPEPVQYTHWNTHQPRYSGGCVAMRGRHPLGRWEVKHCRHFKAMSLCKQPVENQEKAEEYER
WPFHPCYLDWESEPLASCFKVFHSEKVLMMKRTWREAEAFCEEFGAHLASFHIEEENFVNELLHS
KFNWTEERQFWIGFNKRNPNGSWWSDRTPVVSFLDNTYFGEDARNCVYKANKTLLPLHCG
SKREWICKIPRDVKPIPFWYQYDVPWLFYQDAEYLFHTFASEWLNFEFVCSWLHSDLLTIHSAHEQ
EFIHSKIKALSKYGASWWIGLQEERANDEFWRDGTPIYQNWDTGRERTVNNQSQRCGFISITGL
WGSEECVSMPSICKRKKVWVWIEKKKDTPKQHGTCPKGWLYFNYKCLLLNIPKDPSSWKNWTHAQ
HFCAEEGGTLVAIESEVEQAFITMNLFGQTTSVWIGLQNDYETWLNKGPVVYSNWSPFDIINIPSHN



TTEVQKHIPCALLSSNPNFHFTGKWFYFEDCGKEGYGFVCEKMQDTS GHGVNTSDMYMPMPNTLEY
GNRTYKIINANMTWYAAIKTCLMHKAQLVSITDQYHQSF LTVVLNRLGYAHWIGLFTTDNGLNFDWS
DGTKSSFTFWKDEESSLLGDCVFADSNRWHSTACESFLQGAICHVPPETRQSEHPELCSETSI PWI
KFKSNYCYSFSTVLDSMSFEAAHEFCCKEKS NLLTIKDEAENAFLEELFAFGSSVQMVWLNAQFDGN
NETIKWFDGTPTDQSNWGIKPD TDYFKPHHCVALRIPEGLWQLSPCQEKKG FICKMEADIHTAEAL
PEKGPSHSIPLAVVLT LIVIVAICTLSFCIYKHNGGFFRRLAGFRNPYYPATNFSTVYLEENILISDLEKS
DQ

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Secretory phospholipase A2 receptor (PLA2-R) (PLA2R) (180 kDa secretory phospholipase A2 receptor) (C-type lectin domain family 13 member C) (M-type receptor) [Cleaved into: Soluble secretory phospholipase A2 receptor (Soluble PLA2-R) (Soluble PLA2R)] produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Receptor for secretory phospholipase A2 (sPLA2). Acts as a receptor for phospholipase sPLA2-IB/PLA2G1B but not sPLA2-IIA/PLA2G2A. Also able to bind to snake PA2-like toxins. Although its precise function remains unclear, binding of sPLA2 to its receptor participates in both positive and negative regulation of sPLA2 functions as well as clearance of sPLA2. Binding of sPLA2-IB/PLA2G1B induces various effects depending on the cell type, such as activation of the mitogen-activated protein kinase (MAPK) cascade to induce cell proliferation, the production of lipid mediators, selective release of arachidonic acid in bone marrow-derived mast cells. In neutrophils, binding of sPLA2-IB/PLA2G1B can activate p38 MAPK to stimulate elastase release and cell adhesion. May be involved in responses in pro-inflammatory cytokine productions during endotoxic shock. Also has endocytic properties and rapidly internalizes sPLA2 ligands, which is particularly important for the clearance of extracellular sPLA2s to protect their potent enzymatic activities. The soluble secretory phospholipase A2 receptor form is circulating and acts as a negative regulator of sPLA2 functions by blocking the biological functions of sPLA2-IB/PLA2G1B (PubMed:15611272, PubMed:7721806). In podocytes, binding of sPLA2-IB/PLA2G1B can regulate podocyte survival and glomerular homeostasis (PubMed:25335547).

Subcellular Localization: Cell membrane ; Single-pass type I membrane protein .; [Soluble secretory phospholipase A2 receptor]: Secreted .; [Isoform 2]: Secreted .

6. Notes

- Avoid repeated freeze- thaw cycles to maintain protein stability and biological activity.



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- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.