

Recombinant Mouse PLA2R Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51659

Size: 10ug, 100ug

Protein Name: Secretory phospholipase A2 receptor (PLA2-R) (PLA2R) (180 kDa secretory phospholipase A2 receptor) (M-type receptor) [Cleaved into: Soluble secretory phospholipase A2 receptor (Soluble PLA2-R) (Soluble PLA2R)]

Synonym: Pla2r1, Pla2g1br

UniProt ID: Q62028

UniProt Link: www.uniprot.org/uniprotkb/Q62028/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 1487 AA

Molecular Weight: 171 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MVQWLAMLQLLWLQQLLLGIHQGIAQDLTHIQEPSLEWRDKGIFIIQSESLKTCIQAGKSVLTLENCK
QPNEHMLWKWVSDDHLFNVGGSGCLGLNISALEQPLKLYECDSTLISLRWHCDRKMIEGPLQYKVQ
VKSDNTVVARQIHRWIAYTSSGGDICEHPSRDLYTLKGNAHGMPCVFPFQFKGHWHDHCIREGQK
EHLLWCATTSTRYEEDEKWGFCPDPTSMKVFCDATWQRNGSSRICYQFNLLSSLSWNQAHSSCLM
QGGALLSIADDEDEDFIRKHLKVVKEVWIGLNQLDEKAGWQWSDGTPLSYLNWSQEITPGPFVEH
HCGTLEVVSAAWRSRDCESTLPYICKRDLNHTAQGILEKDSWKYHATHCDPDWTPFNRCYKLLKDD
RKSWLGALHSCQSNDSVLMDVASLAEVEFLVSLLRDENASETWIGLSSNKIPVSFEWSSGSSVIFTN
WYPLEPRILPNRRQLCVSAEESDGRWKVKDCKERLFYICKKAGQVPADEQSGCPAGWERHGRFCY
KIDTVLRSFEEASSGYCYCSPALLTITSRFEQAFITSLISSVAEKDSYFWIALQDQNNTGEYTWKTVGQR
EPVQYTYWNTRQPSNRGGCVVVRGGSSLGRWEVKDCSDFKAMSLCKTPVKIWEKTELEERWPFH
PCYMDWESATGLASCFKVFHSEKVLKRSWREAEAFCEEFGAHLASFHIEEENFVNELLHSHKFNW
TQERQFWIGFNRRNPLNAGSWAWSDGSPVSSFLDNAYFEEDAKNCVYKANKTLLPSNCASKHE
WICRIPRDVRPKFPDWYQYDAPWLFYQNAEYLFHTHPAEWATFEFVCGWLRSDFLTIIYSAQEDEFIH
SKIKGLTKYGVKWWIGLEEGGARDQIQWSNGSPVIFQNWWDKGREERVDSQRKRCVFISITGLWGT
ENCSVPLPSICKRVKIWVIEKEKPPTQPGTCKPWLYFNYKCFVLTIPKDPRELKTWTGAQEFCVAK
GGTLVSIKSELEQAFITMNLFGQTTNVWIGLQSTNHEKWNKGKPLVYSNWSPSDIINIPSYNTTEFQK
HIPLCALMSSNPNFHFTGKWYFDDCGKEGYGFVCEKMQDTLEHHVNVSDTSAIPSTLEYGNRTYKII



RGNMTWYAAAGKSCRMHRAELASIPDAFHQAFLTVLLSRLGHTHWIGLSTTDNGQTFDWSDBGTKSPF
TYWKDEESAFLGDCAFADTNGRWHSTACESFLQGAICHVVTETKAFEHPGLCSETSVPWIKFKGNC
YSFSTVLDSRSFEDAHEFCKSEGSNLLAIRDAAENSFLLEELLAFGSSVQMVLNAQFDNNNKTLR
WFDGTPTEQSNWGLRKPDMHLKPHPCVVLRIPEGIWHFTPCEDKKGFICKMEAGIPAVTAQPEKG
LSHSIVPVTVTLTLIALGIFMLCFWIYKQKSDIFQRLTGSRGSSYYPTLNFSTAHEENILISDLEKNTND
EEVRDAPATESKRGRHKGRPICISP

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) (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 phospholipases sPLA2-IB/PLA2G1B, sPLA2-X/PLA2G10 and, with lower affinity, 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 and sPLA2-X/PLA2G10. In podocytes, binding of sPLA2-IB/PLA2G1B can regulate podocyte survival and glomerular homeostasis.

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

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.



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- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.