

Recombinant Mouse Pla2r1 Protein, Myc/DDK-tagged

Cat. No. Pla2r1-4904M Lot. No. (See product label)

SPECIFICATION

Product Overview Purified recombinant protein of mouse full-length phospholipase A2 receptor 1 (Pla2r1), with C-terminal MYC/DDK tag, expressed in HEK293T cells.

Species Mouse

Source HEK293

Description

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 proinflammatory 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.

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Molecular Mass	171 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Pla2r1 phospholipase A2 receptor 1 [<i>Mus musculus</i> (house mouse)]
Official Symbol	Pla2r1
Synonyms	Pla2r1; phospholipase A2 receptor 1; Pla2; Pla2r; Pla2-r; Pla2g1br; secretory phospholipase A2 receptor; 180 kDa secretory phospholipase A2 receptor; M-type receptor; PLA2-I receptor; phospholipase A2, group IB, pancreas, receptor
Gene ID	18779
mRNA Refseq	NM_008867
Protein Refseq	NP_032893
UniProt ID	Q62028

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