

**Mouse Anti-PLA2R/Phospholipase A2 receptor 1 [12-6-5]: MC0173**

**Intended Use:** For Research Use Only

**Description:** This gene represents a phospholipase A2 receptor. The encoded protein likely exists as both a transmembrane form and a soluble form. The transmembrane receptor may play a role in clearance of phospholipase A2, thereby inhibiting its action. Polymorphisms at this locus have been associated with susceptibility to idiopathic membranous nephropathy. Alternatively spliced transcript variants encoding different isoforms have been identified. 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 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.

**Specifications:**

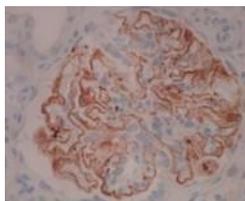
Clone: 12-6-5  
 Source: Mouse  
 Isotype: IgG2b  
 Reactivity: Human  
 Localization: Secreted and cell membrane  
 Formulation: Antibody PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN<sub>3</sub>)  
 Storage: Store at 2°- 8°C  
 Applications: Flow Cyt., ICC/IF, IHC, WB  
 Package:

Description	Catalog No.	Size
PLA2R/Phospholipase A2 receptor 1 Concentrated	MC0173	1 ml

**IHC Procedure\*:**

Positive Control Tissue: Normal kidney  
 Concentrated Dilution: 100-500  
 Pretreatment: Tris EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C  
 Incubation Time and Temp: 30-60 minutes @ RT  
 Detection: Refer to the detection system manual

\* Result should be confirmed by an established diagnostic procedure.



FFPE human membranous nephropathy kidney stained with anti-PLA2R using DAB showing capillary wall of the glomerular basement membrane specific staining

**References:**

1. Antibodies to m-type phospholipase A2 receptor in children with idiopathic membranous nephropathy. Kumar V, et al. Nephrology (Carlton) 20:572-5, 2015.
2. Application of Immunohistochemistry and Immunofluorescence Staining in Detection of Phospholipase A2 Receptor on Paraffin Section of Renal Biopsy Tissue. Dong HR, et al. Oct;37(5):562-6, 2015.
3. Phospholipase A2 receptor (PLA2R) staining is useful in the determination of de novo versus recurrent membranous glomerulopathy. Larsen CP, Walker PD. Transplantation. May 27;95(10):1259-62, 2013.

Doc. 100-MC0173  
Rev. A