

# Product datasheet

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# ARG82686 Human PLA2R ELISA Kit

Package: 96 wells Store at: 4°C

## Summary

Product Description ARG82686 Human PLA2R ELISA Kit is an Enzyme Immunoassay kit for the quantification of Human

PLA2R in serum and plasma.

Tested Reactivity Hu

Tested Application ELISA

Specificity The following recombinant Human proteins were tested and exhibited no cross-reactivity or

interference: ApoAI, BMP1, BMP2, BMP3, BMP4, BMP7, CRP, HGF, HSP27, IL1 alpha, IL1 RI, IL1 beta, IL1RA, IL2, IL4, IL5, IL6, IL8, IL10, IL12, IL13, IL15, IL17C, IL21, IL23, IFN gamma, MMP2, SIL2R, SIL6R, PDGF, PLA2G7, prolactin, TGF beta 1, TGF beta 2, TGF beta 3, TLR1, TLR2, TLR3, TNF alpha, TNF RI, TNF

RII and VEGF.

Target Name PLA2R

Conjugation HRP

Conjugation Note Read at 450 nm.

Sensitivity 78 pg/ml

Sample Type Serum and plasma

Standard Range 156 - 10000 pg/ml

Sample Volume  $100 \mu l$ 

Precision Intra-Assay CV: 6%

Inter-Assay CV: 9%

Alternate Names M-type receptor; Soluble PLA2-R; 180 kDa secretory phospholipase A2 receptor; Soluble PLA2-R;

 $PLA2G1R; CLEC13C; PLA2-R; C-type \ lectin \ domain \ family \ 13 \ member \ C; PLA2R; Secretory \ phospholipase$ 

A2 receptor; PLA2IR

## **Application Instructions**

Assay Time ~ 3 hours

# **Properties**

Form 96 well

Storage instruction Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test

reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual

for detail temperatures of the components.

Note For laboratory research only, not for drug, diagnostic or other use.

# Bioinformation

Gene Symbol PLA2R1

Gene Full Name phospholipase A2 receptor 1, 180kDa

Background 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. [provided by RefSeq, Sep 2010]

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 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. [UniProt]

Highlight Related products:

PLA2R antibodies; PLA2R ELISA Kits; New ELISA data calculation tool: Simplify the ELISA analysis by GainData

PTM The secretory phospholipase A2 receptor form may be produced by the action of metalloproteinases. It

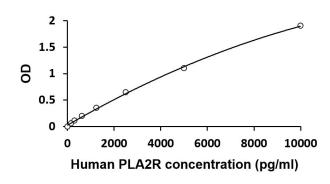
contains all extracellular domains and only lacks transmembrane and cytosolic regions. It is however unclear whether this form is produced by proteolytic cleavage as suggested by some experiments, or by alternative splicing, as in the case of isoform 2 that shares all characteristics of secretory phospholipase

A2 receptor form (By similarity). [UniProt]

Cell membrane; Single-pass type I membrane protein. Soluble secretory phospholipase A2 receptor:

Secreted. Isoform 2: Secreted. [UniProt]

## **Images**



#### ARG82686 Human PLA2R ELISA Kit standard curve image

ARG82686 Human PLA2R ELISA Kit results of a typical standard run with optical density reading at 450 nm.