

# Phospho-LPR1(S4520) Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP3143a

## **Product Information**

Application	WB, DB, IHC-P, E
Primary Accession	<u>Q07954</u>
Other Accession	<u>Q91ZX7</u>
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB07140
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Calculated MW	504606

#### **Additional Information**

Gene ID	4035
Other Names	Prolow-density lipoprotein receptor-related protein 1, LRP-1, Alpha-2-macroglobulin receptor, A2MR, Apolipoprotein E receptor, APOER, CD91, Low-density lipoprotein receptor-related protein 1 85 kDa subunit, LRP-85, Low-density lipoprotein receptor-related protein 1 515 kDa subunit, LRP-515, Low-density lipoprotein receptor-related protein 1 intracellular domain, LRPICD, LRP1, A2MR, APR
Target/Specificity	This LPR1 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S4520 of human LPR1.
Dilution	WB~~1:1000 DB~~1:500 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Phospho-LPR1(S4520) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

# **Protein Information**

Name	LRP1 ( <u>HGNC:6692</u> )
Synonyms	A2MR, APR
Function	Endocytic receptor involved in endocytosis and in phagocytosis of apoptotic cells (PubMed: <u>11907044</u> , PubMed: <u>12713657</u> ). Required for early embryonic development (By similarity). Involved in cellular lipid homeostasis. Involved in the plasma clearance of chylomicron remnants and activated LRPAP1 (alpha 2-macroglobulin), as well as the local metabolism of complexes between plasminogen activators and their endogenous inhibitors. Acts as an LRPAP1 alpha-2- macroglobulin receptor (PubMed: <u>1702392</u> , PubMed: <u>26142438</u> ). Acts as TAU/MAPT receptor and controls the endocytosis of TAU/MAPT as well as its subsequent spread (PubMed: <u>32296178</u> ). May modulate cellular events, such as APP metabolism, kinase-dependent intracellular signaling, neuronal calcium signaling as well as neurotransmission (PubMed: <u>12888553</u> ). Also acts as a receptor for IGFBP3 to mediate cell growth inhibition (PubMed: <u>9252371</u> ).
Cellular Location	[Low-density lipoprotein receptor-related protein 1 85 kDa subunit]: Cell membrane; Single-pass type I membrane protein Membrane, coated pit [Low-density lipoprotein receptor-related protein 1 intracellular domain]: Cytoplasm Nucleus. Note=After cleavage, the intracellular domain (LRPICD) is detected both in the cytoplasm and in the nucleus.
Tissue Location	Most abundant in liver, brain and lung.

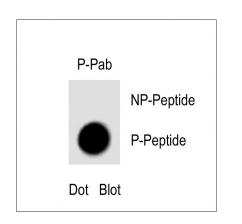
## Background

LPR1 is involved in the plasma clearance of chylomicron remnants and activated alpha 2-macroglobulin, as well as the local metabolism of complexes between plasminogen activators and their endogenous inhibitors.

#### References

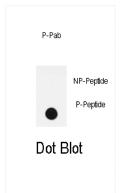
Yu, G., et al., Blood 105(9):3545-3551 (2005). Cam, J.A., et al., J. Biol. Chem. 280(15):15464-15470 (2005). Niemeier, A., et al., J. Bone Miner. Res. 20(2):283-293 (2005). Spijkers, P.P., et al., Blood 105(1):170-177 (2005). Deane, R., et al., Neuron 43(3):333-344 (2004).

#### Images



Dot blot analysis of Phospho-LPR1(S4520) Antibody (Cat. AP3143a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antobodies working concentration was 0. 5ug per ml.

Dot blot analysis of anti-Phospho-LPR1-S4520 Antibody (Cat.#AP3143a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were



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adsorbed. Antibody working concentrations are 0.5ug per ml.

Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.