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Phospho-LPR1(S4520) Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3143a

Product Information

Application	WB, DB, IHC-P, E
Primary Accession	Q07954
Other Accession	Q91ZX7
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB07140
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 (HGNC:6692)
Synonyms	A2MR, APR
Function	Endocytic receptor involved in endocytosis and in phagocytosis of apoptotic cells (PubMed:11907044, PubMed:12713657). 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:1702392, PubMed:26142438). Acts as TAU/MAPT receptor and controls the endocytosis of TAU/MAPT as well as its subsequent spread (PubMed:32296178). May modulate cellular events, such as APP metabolism, kinase-dependent intracellular signaling, neuronal calcium signaling as well as neurotransmission (PubMed:12888553). Also acts as a receptor for IGFBP3 to mediate cell growth inhibition (PubMed:9252371).
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.

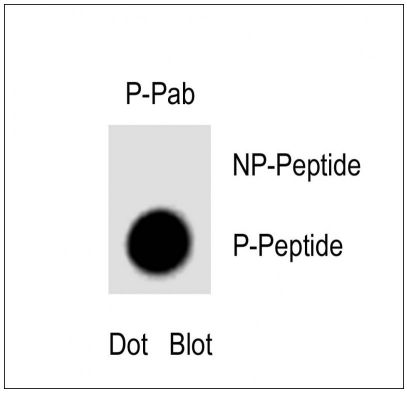
Background

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

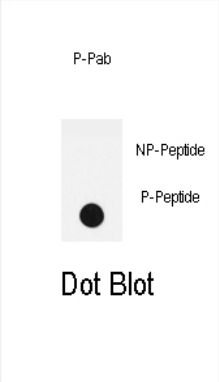
Yu, G., et al., Blood 105(9):3545-3551 (2005).
Cam, J.A., et al., J. Biol. Chem. 280(15):15464-15470 (2005).
Niemeier, A., et al., J. Bone Miner. Res. 20(2):283-293 (2005).
Spijkers, P.P., et al., Blood 105(1):170-177 (2005).
Deane, R., et al., Neuron 43(3):333-344 (2004).

Images

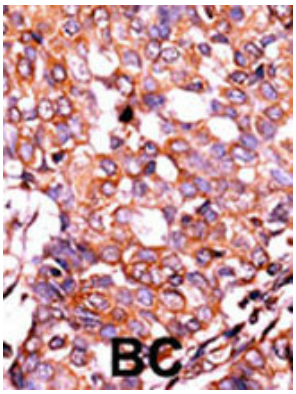


Dot blot analysis of Phospho-LPR1(S4520) Antibody (Cat. AP3143a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antobodies working concentration was 0. 5ug per ml.

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



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.