

## LRP1 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP6153a

## Specification

# LRP1 Antibody (C-term) - Product Information

Application Primary Accession Other Accession Reactivity Predicted Host Clonality Isotype Antigen Region IHC-P,E <u>007954</u> <u>091ZX7, G3V928</u> Human Mouse, Rat Rabbit Polyclonal Rabbit IgG 4515-4544

## LRP1 Antibody (C-term) - 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 LRP1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 4515~4544 amino acids from the C-terminal region of human LRP1.

Dilution IHC-P~~1:50~100

#### Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

#### 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**

LRP1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## LRP1 Antibody (C-term) - Protein Information



## Name LRP1 (HGNC:6692)

## 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>). Acts also 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

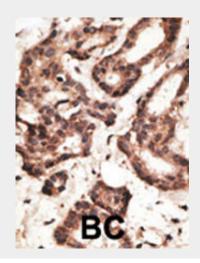
Most abundant in liver, brain and lung.

## LRP1 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

#### LRP1 Antibody (C-term) - Images





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.

# LRP1 Antibody (C-term) - Background

Low density lipoprotein (LDL) receptor-related protein (LRP), a member of the LDL receptor family, binds multiple classes of ligands and has been implicated in a broad range of normal and disease processes involving lipid metabolism, protease clearance, and cell migration (1). Structurally, members of the LDLR family share homology within their extracellular domains, which are highlighted by the presence of clusters of ligand-binding repeats. LRP is a large endocytic receptor that participates in several biological pathways and plays prominent roles in lipoprotein metabolism and in the catabolism of proteinases involved in coagulation and fibrinolysis. LRP also mediates the cellular entry of certain viruses and toxins and facilitates the activation of various lysosomal enzymes (2). All LRPs are expressed in the central nervous system and, for most receptors, animal models have shown that they are indispensable for successful neurodevelopment. The mechanisms by which they regulate the formation of the nervous system are varied and include the transduction of extracellular signals and the modulation of intracellular signal propagation, as well as cargo transport, the function most commonly attributed to this gene family (3).

# LRP1 Antibody (C-term) - References

Kinoshita, A., et al., J. Biol. Chem. 278(42):41182-41188 (2003). Zhu, Y., et al., J. Biol. Chem. 278(38):36257-36263 (2003). Lutters, B.C., et al., J. Biol. Chem. 278(36):33831-33838 (2003). Stebbing, J., et al., Blood 102(5):1806-1814 (2003). Takayama, Y., et al., J. Biol. Chem. 278(24):22112-22118 (2003).