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LRP1 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP6153a

Specification

LRP1 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession Q07954

LRP1 Antibody (C-term) Blocking Peptide - 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
The synthetic peptide sequence used to generate the antibody AP6153a was selected from the C-term region of human LRP1 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

LRP1 Antibody (C-term) Blocking Peptide - 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:26142438, PubMed:1702392). 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).

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) Blocking Peptide - Protocols

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

- Blocking Peptides

LRP1 Antibody (C-term) Blocking Peptide - Images

LRP1 Antibody (C-term) Blocking Peptide - 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) Blocking Peptide - 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).