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LRP4 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP6156a

Specification

LRP4 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession	O75096
Other Accession	NP_002325

LRP4 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 4038

Other Names
Low-density lipoprotein receptor-related protein 4, LRP-4, Multiple epidermal growth factor-like domains 7, LRP4, KIAA0816, LRP10, MEGF7

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP6156a was selected from the C-term region of human LRP4 . 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.

LRP4 Antibody (C-term) Blocking Peptide - Protein Information

LRP4 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).

LRP4 Antibody (C-term) Blocking Peptide - References

Grimsley PG, et al. Trends Cardiovasc Med. 1998:363Strickland DK & Ranganathan S. J Thromb Haemost. 2003:1663May P and Herz J. Traffic. 2003:291

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Name LRP4

Synonyms KIAA0816, LRP10, MEGF7

Function
Mediates SOST-dependent inhibition of bone formation. Functions as a specific facilitator of SOST-mediated inhibition of Wnt signaling. Plays a key role in the formation and the maintenance of the neuromuscular junction (NMJ), the synapse between motor neuron and skeletal muscle. Directly binds AGRIN and recruits it to the MUSK signaling complex. Mediates the AGRIN-induced phosphorylation of MUSK, the kinase of the complex. The activation of MUSK in myotubes induces the formation of NMJ by regulating different processes including the transcription of specific genes and the clustering of AChR in the postsynaptic membrane. Alternatively, may be involved in the negative regulation of the canonical Wnt signaling pathway, being able to antagonize the LRP6-mediated activation of this pathway. More generally, has been proposed to function as a cell surface endocytic receptor binding and internalizing extracellular ligands for degradation by lysosomes. May play an essential role in the process of digit differentiation (By similarity).

Cellular Location
Cell membrane {ECO:0000250|UniProtKB:Q8VI56}; Single-pass type I membrane protein

Tissue Location
Expressed in bone; present in osteoblasts and osteocytes. No expression is observed in osteoclast. Expressed in several regions of the brain.

LRP4 Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides