

LRP4 Antibody (Internal)

Goat Polyclonal Antibody Catalog # ALS14244

Specification

LRP4 Antibody (Internal) - Product Information

Application WB, IHC Primary Accession 075096

Reactivity Human, Mouse, Rat, Rabbit, Monkey, Pig,

Chicken, Horse, Xenopus, Bovine, Dog

Host Goat
Clonality Polyclonal
Calculated MW 212kDa KDa

LRP4 Antibody (Internal) - 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

Human LRP4.

Reconstitution & Storage

Store at -20°C. Minimize freezing and thawing.

Precautions

LRP4 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

LRP4 Antibody (Internal) - Protein Information

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 (Internal) - Protocols

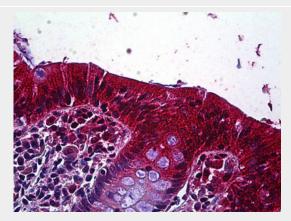
Provided below are standard protocols that you may find useful for product applications.

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

LRP4 Antibody (Internal) - Images



LRP4 antibody (0.1 ug/ml) staining of human cerebral cortex lysate (35 ug protein/ml in RIPA buffer).



Anti-LRP4 antibody IHC of human colon, epithelium.



LRP4 Antibody (Internal) - Background

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.

LRP4 Antibody (Internal) - References

Ishikawa K.,et al.Submitted (MAY-2002) to the EMBL/GenBank/DDBJ databases. Nakayama M.,et al.Genomics 51:27-34(1998). Taylor T.D.,et al.Nature 440:497-500(2006). Li Y.,et al.Am. J. Hum. Genet. 86:696-706(2010). Leupin O.,et al.J. Biol. Chem. 286:19489-19500(2011).