

**LRP5 Antibody (C-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP14655b****Specification**

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**LRP5 Antibody (C-term) Blocking Peptide - Product Information**Primary Accession [O75197](#)**LRP5 Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 4041**Other Names**

Low-density lipoprotein receptor-related protein 5, LRP-5, LRP5, LR3, LRP7

**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.

**LRP5 Antibody (C-term) Blocking Peptide - Protein Information****Name** LRP5 {ECO:0000303|PubMed:24706814, ECO:0000312|HGNC:HGNC:6697}**Function**

Acts as a coreceptor with members of the frizzled family of seven-transmembrane spanning receptors to transduce signal by Wnt proteins (PubMed:<a href="http://www.uniprot.org/citations/11336703" target="\_blank">11336703</a>, PubMed:<a href="http://www.uniprot.org/citations/11448771" target="\_blank">11448771</a>, PubMed:<a href="http://www.uniprot.org/citations/15778503" target="\_blank">15778503</a>, PubMed:<a href="http://www.uniprot.org/citations/11719191" target="\_blank">11719191</a>, PubMed:<a href="http://www.uniprot.org/citations/15908424" target="\_blank">15908424</a>, PubMed:<a href="http://www.uniprot.org/citations/16252235" target="\_blank">16252235</a>). Activates the canonical Wnt signaling pathway that controls cell fate determination and self-renewal during embryonic development and adult tissue regeneration (PubMed:<a href="http://www.uniprot.org/citations/11336703" target="\_blank">11336703</a>, PubMed:<a href="http://www.uniprot.org/citations/11719191" target="\_blank">11719191</a>). In particular, may play an important role in the development of the posterior patterning of the epiblast during gastrulation (By similarity). During bone development, regulates osteoblast proliferation and differentiation thus determining bone mass (PubMed:<a href="http://www.uniprot.org/citations/11719191" target="\_blank">11719191</a>). Mechanistically, the formation of the signaling complex between Wnt ligand, frizzled receptor and LRP5 coreceptor promotes the recruitment of AXIN1 to LRP5, stabilizing beta-catenin/CTNNB1 and

activating TCF/LEF-mediated transcriptional programs (PubMed:<a href="http://www.uniprot.org/citations/11336703" target="\_blank">11336703</a>, PubMed:<a href="http://www.uniprot.org/citations/25920554" target="\_blank">25920554</a>, PubMed:<a href="http://www.uniprot.org/citations/24706814" target="\_blank">24706814</a>, PubMed:<a href="http://www.uniprot.org/citations/14731402" target="\_blank">14731402</a>). Acts as a coreceptor for non-Wnt proteins, such as norrin/NDP. Binding of norrin/NDP to frizzled 4/FZD4-LRP5 receptor complex triggers beta-catenin/CTNNB1-dependent signaling known to be required for retinal vascular development (PubMed:<a href="http://www.uniprot.org/citations/27228167" target="\_blank">27228167</a>, PubMed:<a href="http://www.uniprot.org/citations/16252235" target="\_blank">16252235</a>). Plays a role in controlling postnatal vascular regression in retina via macrophage-induced endothelial cell apoptosis (By similarity).

#### **Cellular Location**

Membrane {ECO:0000250|UniProtKB:Q91VN0}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:Q91VN0} Endoplasmic reticulum. Note=Chaperoned to the plasma membrane by MESD. {ECO:0000250|UniProtKB:Q91VN0}

#### **Tissue Location**

Widely expressed, with the highest level of expression in the liver and in aorta.

### **LRP5 Antibody (C-term) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

### **LRP5 Antibody (C-term) Blocking Peptide - Images**

### **LRP5 Antibody (C-term) Blocking Peptide - Background**

This gene encodes a transmembrane low-density lipoprotein receptor that binds and internalizes ligands in the process of receptor-mediated endocytosis. This protein also acts as a co-receptor with Frizzled protein family members for transducing signals by Wnt proteins and was originally cloned on the basis of its association with type 1 diabetes mellitus in humans. This protein plays a key role in skeletal homeostasis and many bone density related diseases are caused by mutations in this gene. Mutations in this gene also cause familial exudative vitreoretinopathy.

### **LRP5 Antibody (C-term) Blocking Peptide - References**

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010) Lee, D.Y., et al. Menopause 17(5):1064-1070(2010) Liu, J.M., et al. J. Clin. Endocrinol. Metab. 95 (9), E112-E120 (2010) :Paternoster, L., et al. J. Clin. Endocrinol. Metab. 95(8):3940-3948(2010) Stathopoulou, M.G., et al. J Am Diet Assoc 110(7):1078-1083(2010)