

LRP5 Rabbit pAb

CatalogNo: YN3499

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse

Applications

- WB

MW

- 178kD (Calculated)

Isotype

- IgG

Storage

Storage*

-15°C to -25°C/1 year (Do not lower than -25°C)

Formulation

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

WB 1:500-2000

Basic Information

Clonality

Polyclonal

Immunogen Information

Immunogen

Synthesized peptide derived from human LRP5 AA range: 1047-1097

Specificity

This antibody detects endogenous levels of LRP5 at Human/Mouse

Target Information

Gene name

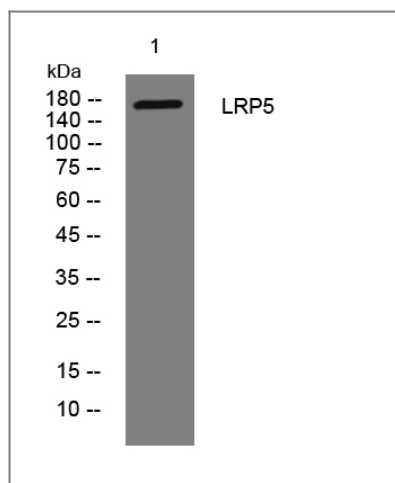
LRP5 LR3 LRP7

Protein Name	LRP5		
	Organism	Gene ID	UniProt ID
	Human	4041 ;	O75197 ;
	Mouse	16973 ;	Q91VN0 ;
Cellular Localization	Membrane ; Single-pass type I membrane protein . Endoplasmic reticulum . Chaperoned to the plasma membrane by MESD. .		
Tissue specificity	Widely expressed , with the highest level of expression in the liver and in aorta.		

Function

Disease:Defects in LRP5 are a cause of endosteal hyperostosis Worth type (WENHY) [MIM:144750]; also known as autosomal dominant osteosclerosis. WENHY is an autosomal dominant sclerosing bone dysplasia clinically characterized by elongation of the mandible , increased gonial angle , flattened forehead , and the presence of a slowly enlarging osseous prominence of the hard palate (torus palatinus) . Serum calcium , phosphorus and alkaline phosphatase levels are normal. Radiologically , it is characterized by early thickening of the endosteum of long bones , the skull and of the mandible. With advancing age , the trabeculae of the metaphysis become thickened. WENHY becomes clinically and radiologically evident by adolescence , does not cause deformity except in the skull and mandible , and is not associated with bone pain or fracture. Affected patients have normal height , proportion , intelligence and longevity. ,Disease:Defects in LRP5 are a cause of high bone mass trait (HBM) [MIM:601884]. HBM is a rare phenotype characterized by exceptionally dense bones. HBM individuals show otherwise a completely normal skeletal structure and no other unusual clinical findings. ,Disease:Defects in LRP5 are the cause of osteopetrosis autosomal dominant type 1 (OPTA1) [MIM:607634]. Osteopetrosis is a rare genetic disease characterized by abnormally dense bone , due to defective resorption of immature bone. The disorder occurs in two forms: a severe autosomal recessive form occurring in utero , infancy , or childhood , and a benign autosomal dominant form occurring in adolescence or adulthood. OPTA1 is characterized by generalized osteosclerosis most pronounced in the cranial vault. Patients are often asymptomatic , but some suffer from pain and hearing loss. It appears to be the only type of osteopetrosis not associated with an increased fracture rate. ,Disease:Defects in LRP5 are the cause of osteoporosis pseudoglioma syndrome (OPPG) [MIM:259770]. OPPG is a recessive disorder characterized by very low bone mass and blindness. Individually with OPPG are prone to develop bone fractures and deformations and have various eye abnormalities , including phthisis bulbi , retinal detachments , falciform folds or persistent vitreal vasculature. ,Disease:Defects in LRP5 are the cause of van Buchem disease type 2 (VBCH2) [MIM:607636]. VBCH2 is an autosomal dominant sclerosing bone dysplasia characterized by cranial osteosclerosis , thickened calvaria and cortices of long bones , enlarged mandible and normal serum alkaline phosphatase levels. ,Disease:Defects in LRP5 are the cause of vitreoretinopathy exudative type 4 (EVR4) [MIM:601813]. EVR4 is a disorder of the retinal vasculature characterized by an abrupt cessation of growth of peripheral capillaries , leading to an avascular peripheral retina. This may lead to compensatory retinal neovascularization , which is thought to be induced by hypoxia from the initial avascular insult. New vessels are prone to leakage and rupture causing exudates and bleeding , followed by scarring , retinal detachment and blindness. Clinical features can be highly variable , even within the same family. Patients with mild forms of the disease are asymptomatic , and their only disease related abnormality is an arc of avascular retina in the extreme temporal periphery. EVR4 inheritance can be autosomal dominant or recessive. ,Disease:Genetic variations in LRP5 may be associated with susceptibility to involutional osteoporosis [MIM:166710]; also known as senile osteoporosis or postmenopausal osteoporosis. Osteoporosis is characterized by reduced bone mineral density , disruption of bone microarchitecture , and the alteration of the amount and variety of non-collagenous proteins in bone. Osteoporotic bones are more at risk of fracture. ,Function:Involved in the Wnt/beta catenin signaling pathway , probably by acting as a coreceptor together with Frizzled for Wnt. ,polymorphism:Genetic variations in LRP5 define the bone mineral density quantitative trait locus 1 (BMND1) [MIM:601884]. Variance in bone mineral density influences bone mass and contributes to size determination in the general population. ,PTM:Phosphorylation of the PPPSP motif creates an inducible docking site for axin. ,similarity:Belongs to the LDLR family. ,similarity:Contains 20 LDL-receptor class B repeats. ,similarity:Contains 3 LDL-receptor class A domains. ,similarity:Contains 4 EGF-like domains. ,subunit:Interacts with different Wnt/Frizzled complexes. Interacts with axin. ,tissue specificity:Widely expressed , with the highest level of expression in the liver. ,

Validation Data



Western blot analysis of lysates from HpeG2 cells, primary antibody was diluted at 1:1000, 4° over night

Contact information

Orders: order@immunoway.com
Support: tech@immunoway.com
Telephone: 877-594-3616 (Toll Free), 408-747-0185
Website: <http://www.immunoway.com>
Address: 2200 Ringwood Ave San Jose, CA 95131 USA



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