# abcam

### Product datasheet

## Anti-LRP6 antibody ab24386

★★★★★ 1 Abreviews 7 References 1 图像

#### 概述

产品名称 Anti-LRP6抗体

描述 山羊多克隆抗体to LRP6

**宿主** Goat

 经测试应用
 适用于: IHC-P

 种属反应性
 与反应: Human

预测可用于: Mouse, Rat, Chicken, Dog, Chimpanzee

A

免疫原 Synthetic peptide:

CMTSVATAKGYTSDL

, corresponding to amino acids 1546-1560 of Human LRP6

Run BLAST with

Run BLAST with

阳性对照 IHC-P: Human kidney tissue.

常规说明

The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

#### 性能

形式 Liquid

**存放说明** Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

**存储溶液** pH: 7.30

Preservative: 0.02% Sodium azide

Constituents: Tris buffered saline, 0.5% BSA

纯**度** Immunogen affinity purified

纯**化说明** Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity

chromatography using the immunizing peptide.

**克隆** 多克隆

1

同种型 lgG

#### 应用

#### The Abpromise guarantee

Abpromise™承诺保证使用ab24386于以下的经测试应用

"应用说明"部分下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
IHC-P		Use a concentration of 4 - 6 $\mu$ g/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

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#### 功能

Component of the Wnt-Fzd-LRP5-LRP6 complex that triggers beta-catenin signaling through inducing aggregation of receptor-ligand complexes into ribosome-sized signalsomes. Cell-surface coreceptor of Wnt/beta-catenin signaling, which plays a pivotal role in bone formation. The Wnt-induced Fzd/LRP6 coreceptor complex recruits DVL1 polymers to the plasma membrane which, in turn, recruits the AXIN1/GSK3B-complex to the cell surface promoting the formation of signalsomes and inhibiting AXIN1/GSK3-mediated phosphorylation and destruction of beta-catenin. Required for posterior patterning of the epiblast during gastrulation.

组织特异性

Widely co-expressed with LRP5 during embryogenesis and in adult tissues.

疾病相关

Defects in LRP6 are the cause of autosomal dominant coronary artery disease type 2 (ADCAD2)

[MIM:610947].

序列相似性

Belongs to the LDLR family.

Contains 4 EGF-like domains.

Contains 3 LDL-receptor class A domains. Contains 20 LDL-receptor class B repeats.

结构域

The YWTD-EGF-like domains 1 and 2 are required for the interaction with Wnt-frizzled complex.

The YWTD-EGF-like domains 3 and 4 are required for the interaction with DKK1.

The PPPSP motifs play a central role in signal transduction by being phosphorylated, leading to activate the Wnt signaling pathway.

翻译后修饰

Dual phosphorylation of cytoplasmic PPPSP motifs sequentially by GSK3 and CK1 is required for AXIN1-binding, and subsequent stabilization and activation of beta-catenin via preventing GSK3-mediated phosphorylation of beta-catenin. Phosphorylated, in vitro, by GRK5/6 within and outside the PPPSP motifs. Phosphorylation at Ser-1490 by CDK14 during G2/M phase leads to regulation of the Wnt signaling pathway during the cell cycle. Phosphorylation by GSK3B is induced by RPSO1 binding and inhibited by DKK1. Phosphorylated, in vitro, by casein kinase I on Thr-1479

Undergoes gamma-secretase-dependent regulated intramembrane proteolysis (RIP). The extracellular domain is first released by shedding, and then, through the action of gamma-secretase, the intracellular domain (ICD) is released into the cytoplasm where it is free to bind to GSK3B and to activate canonical Wnt signaling.

Palmitoylation on the two sites near the transmembrane domain leads to release of LRP6 from the endoplasmic reticulum.

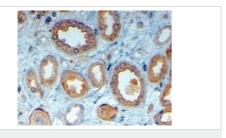
Mono-ubiquitinated which retains LRP6 in the endoplasmic reticulum.

N-glycosylation is required for cell surface location.

#### 细胞定位

Membrane. Endoplasmic reticulum. On Wnt signaling, undergoes a cycle of caveolin- or clathrin-mediated endocytosis and plasma membrane location. Released from the endoplasmic reticulum on palmitoylation. Mono-ubiquitination retains it in the endoplasmic reticulum in the absence of palmitoylation. On Wnt signaling, phosphorylated, aggregates and colocalizes with AXIN1 and GSK3B at the plasma membrane in LRP6-signalsomes. Chaperoned to the plasma membrane by MESD.

#### 图片



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-LRP6 antibody (ab24386)

ab24386 staining LRP6 in Human Kidney at  $4\mu g/ml$  by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections). Sections were subjected to steamed antigen retrieval with citrate buffer pH 6.0, and antibody was visualised with HRP-staining.

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