

# LRP4 (H-98): sc-98775

## BACKGROUND

Members of the LDL receptor gene family, including LDLR (low density lipoprotein receptor), LRP1 (low density lipoprotein related protein), Megalin (also designated GP330), VLDLR (very low density lipoprotein receptor) and ApoER2 are characterized by a cluster of cysteine-rich class A repeats, epidermal growth factor (EGF)-like repeats, YWTD repeats and an O-linked sugar domain. LRP4 (low-density lipoprotein receptor-related protein 4), also known as multiple epidermal growth factor-like domains 7 (MEGF7), is a 1950 amino acid protein belonging to the LDL receptor gene family. LRP4 is potentially a cell surface endocytic receptor, which binds extracellular ligands and internalizes them for degradation by lysosomes. As a single-pass type I membrane protein, LRP4 is expressed in many regions of the brain. Mutations in the gene that encodes LRP4 have been found to cause syndactyly, a condition characterized by the fusion of two or more digits.

## REFERENCES

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2. Simon-Chazottes, D., Tutois, S., Kuehn, M., Evans, M., Bourgade, F., Cook, S., Davison, M.T. and Guénet, J.L. 2006. Mutations in the gene encoding the low-density lipoprotein receptor LRP4 cause abnormal limb development in the mouse. *Genomics* 87: 673-677.
3. Johnson, E.B., Steffen, D.J., Lynch, K.W. and Herz, J. 2006. Defective splicing of MEGF7/LRP4, a regulator of distal limb development, in autosomal recessive mulefoot disease. *Genomics* 88: 600-609.
4. Duchesne, A., Gautier, M., Chadi, S., Grohs, C., Floriot, S., Gallard, Y., Caste, G., Ducos, A. and Eggen, A. 2006. Identification of a doublet missense substitution in the bovine LRP4 gene as a candidate causal mutation for syndactyly in Holstein cattle. *Genomics* 88: 610-621.
5. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 604270. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: LRP4 (human) mapping to 11p11.2; Lrp4 (mouse) mapping to 2 E1.

## SOURCE

LRP4 (H-98) is a rabbit polyclonal antibody raised against amino acids 1671-1768 mapping within an extracellular domain of LRP4 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

LRP4 (H-98) is recommended for detection of LRP4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

LRP4 (H-98) is also recommended for detection of LRP4 in additional species, including canine and bovine.

Suitable for use as control antibody for LRP4 siRNA (h): sc-96919, LRP4 siRNA (m): sc-149049, LRP4 shRNA Plasmid (h): sc-96919-SH, LRP4 shRNA Plasmid (m): sc-149049-SH, LRP4 shRNA (h) Lentiviral Particles: sc-96919-V and LRP4 shRNA (m) Lentiviral Particles: sc-149049-V.

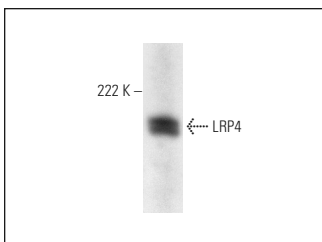
Molecular Weight of LRP4: 216 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

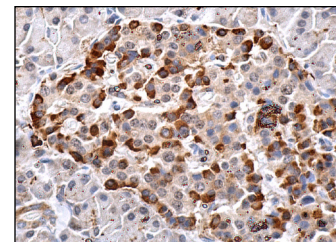
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



LRP4 (H-98): sc-98775. Western blot analysis of LRP4 expression in HeLa whole cell lysate.



LRP4 (H-98): sc-98775. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of islets of Langerhans.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.