

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human LRP-1B in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human (rh) LRP-1, rhLRP-4, rhLRP-5, and rhLRP-6 is observed.                                                                                      |
| <b>Source</b>             | Polyclonal Sheep IgG                                                                                                                                                                                                                                                        |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human LRP-1B<br>Leu21-Glu244<br>Accession # Q9NZR2                                                                                                                                                                                      |
| <b>Conjugate</b>          | Alexa Fluor 700<br>Excitation Wavelength: 675-700 nm<br>Emission Wavelength: 723 nm                                                                                                                                                                                         |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

**Western Blot** Optimal dilution of this antibody should be experimentally determined.

## PREPARATION AND STORAGE

**Shipping** The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

## BACKGROUND

LRP-1B (Low density lipoprotein-related protein #1B; also LRP-DIT) is a 600-620 kDa member of the LDLR family of proteins. It is expressed on vascular smooth muscle cells and likely neurons, and binds multiple molecules, including uPA, PAI-1, PDGFRβ, uPAR, and Pseudomonas exotoxin. It is considered a tumor suppressor, and appears to block the generation of plasmin. Mature human LRP-1B is a 4579 amino acid (aa) type I transmembrane (TM) glycoprotein. It contains a 4424 aa extracellular domain (ECD) (aa 21-4444) plus a 132 aa cytoplasmic region (aa 4468-4599). In the ECD, there are 32 LDLR class A repeats, 14 EGF-like repeats, and 36 LDLR class B repeats that show an interspersing pattern. In the cytoplasmic region, one NLS (aa 4468-4474) and two endocytosis signal motifs (aa 4492-4562) are found. LRP-B1 is cleaved in the Golgi by furin after Arg3957 to create a noncovalent heterodimer consisting of a 515 kDa ECD, and an 85-95 kDa TM segment. Either uncleaved LRP-1B, or the dissociated heterodimer can undergo additional processing, leading to cleavage of the 90 kDa TM segment after Lys4435. This creates a 21 kDa TM C-terminal fragment that can undergo further γ-secretase processing to generate a cytoplasmic, 18 kDa peptide that translocates to the nucleus. Over aa 21-244, human LRP-1B shares 81% aa identity with mouse LRP-1B.

## PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.