

DESCRIPTION

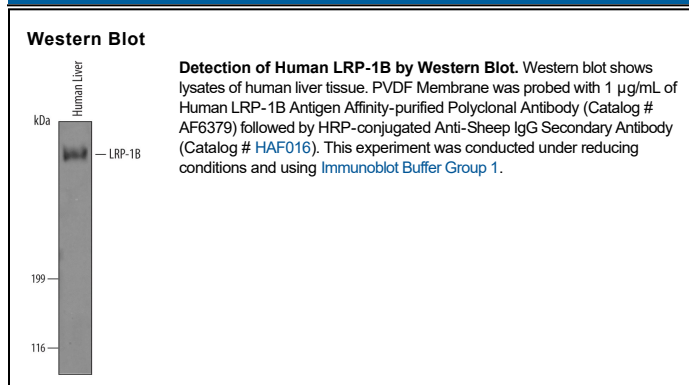
| | |
|---------------------------|---|
| Species Reactivity | Human |
| Specificity | Detects human LRP-1B in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human (rh) LRP-1, rhLRP-4, rhLRP-5, and rhLRP-6 is observed. |
| Source | Polyclonal Sheep IgG |
| Purification | Antigen Affinity-purified |
| Immunogen | <i>E. coli</i> -derived recombinant human LRP-1B Leu21-Glu244 Accession # Q9NZR2 |
| Formulation | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS. |

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.

| | Recommended Concentration | Sample |
|---------------------|----------------------------------|---------------|
| Western Blot | 1 µg/mL | See Below |

DATA



PREPARATION AND STORAGE

| | |
|--------------------------------|--|
| Reconstitution | Sterile PBS to a final concentration of 0.2 mg/mL. |
| Shipping | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C |
| Stability & Storage | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution. |

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-1B 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.