Human LRP-1B Alexa Fluor® 488-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF6379G
100 µg

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	*E. coli*-derived recombinant human LRP-1B Leu21-Glu244 Accession # Q9NZR2
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *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, PDGFRβǵ 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

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