

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human LRPAP in direct ELISAs and Western blots. In Western blots, approximately 30% cross-reactivity with recombinant mouse LRPAP is observed.                                                                                                                      |
| <b>Source</b>             | Polyclonal Goat IgG                                                                                                                                                                                                                                                         |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human LRPAP<br>Tyr35-Leu357<br>Accession # P30533                                                                                                                                                                                       |
| <b>Conjugate</b>          | Alexa Fluor 647<br>Excitation Wavelength: 650 nm<br>Emission Wavelength: 668 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.

|                            |                                                                        |
|----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>        | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunocytochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## BACKGROUND

LRPAP (LDL receptor-related protein-associated protein 1; also named RAP), is a ubiquitously expressed 39 kDa chaperone for LDL receptor family proteins (1, 2). Mature human LRPAP shares 77% amino acid sequence identity with mouse and rat LRPAP. It is organized into three domains of comparable length. Domains D2 and D3 interact with each other, while D1 is independent (3). The D1 domain contains a low affinity binding site for LRP, and the associated D2 and D3 domains bind LRP with high affinity (4). The majority of LRPAP is localized in the endoplasmic reticulum and Golgi (5). LRPAP prevents the premature interaction of LRP, LRP2/megalin, and VLDLR with their coexpressed ligands, thereby promoting proper receptor folding and export from the ER (6-8). Protonation of conserved histidine residues within the D3 domain induces the separation of LRPAP and LRP in the relatively acidic Golgi (9). LRPAP, which contains a C-terminal HNEL motif, can then recycle to the ER (9). A minor amount of LRPAP remains associated with LRP and can modulate receptor activity on the cell surface (5). Exogenously applied LRPAP competitively inhibits LDL receptor family binding and uptake of activated α2-macroglobulin, apoB100- or apoE-enriched LDL and VLDL particles, cholesteryl esters, and complexes of PAI-1 with either tPA or uPA (10-14).

## PRODUCT SPECIFIC NOTICES

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