

## Product Information

### Anti-LRP1 (C-terminal)

produced in rabbit, IgG fraction of antiserum

Product Number **L2170**

#### Product Description

Anti-LRP1 (C-terminal) is produced in rabbit using as the immunogen a synthetic peptide corresponding to a sequence at the C-terminal of human LRP1 (GenID: 4035), conjugated to KLH. The corresponding sequence is identical in mouse, rat, dog, and monkey. Whole serum is purified using protein A immobilized on agarose to provide the IgG fraction of antiserum.

Anti-LRP1 (C-terminal) recognizes human, mouse, and rat LRP1 (not tested in other species). The antibody may be used in various immunochemical techniques including immunoblotting (~85 kDa) and immunofluorescence. Detection of the LRP1 band by immunoblotting is specifically inhibited by the immunizing peptide.

LDL receptor-related protein 1 (LRP1), also known as  $\alpha$ -2-macroglobulin receptor, is a large endocytic receptor widely expressed on surface and intracellular membranes of many cells. LRP1 is a member of the LDL receptor family, which is involved in several biological processes. LRP1 is synthesized in the endoplasmic reticulum as a single-chain 600 kDa type I transmembrane glycosylated precursor that is cleaved subsequently in the Golgi complex into two subunits of ~515 and 85 kDa. The 515 kDa N-terminal subunit remains attached to the membrane through noncovalent association with the smaller 85 kDa C-terminal subunit that contains the transmembrane and cytoplasmic domains.

LRP1 expression is essential for early embryonic development. LRP1 functions in lipoprotein metabolism, proteinase regulation, activation of lysosomal enzymes, cellular entry of viruses and toxins, cell signaling pathways, cell migration, and neurodevelopment. LRP1 recognizes at least 30 different ligands including lipoproteins, proteinases, proteinase-inhibitor complexes, ECM proteins, bacterial toxins, viruses, and various intracellular proteins.<sup>1-5</sup>

#### Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

#### Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

#### Storage/Stability

Store at  $-20^{\circ}\text{C}$ . For continuous use, the product may be stored at  $2-8^{\circ}\text{C}$  for up to one month. For extended storage, freeze at  $-20^{\circ}\text{C}$  in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

#### Product Profile

**Immunoblotting:** a working antibody dilution of 1:1,000-1:2,000 is recommended using whole extracts of mouse C2C12 cells; a working antibody dilution of 1:500-1:1,000 is recommended using whole extracts of human U87 cells.

**Immunofluorescence:** a working antibody dilution of 1:500-1:1,000 is recommended using rat NRK cells.

**Note:** In order to obtain best results in various techniques and preparations, it is recommended to determine optimal working dilutions by titration.

#### References

1. Strickland, D.K. et al., *J. Biol. Chem.*, **265**, 17401-17404 (1990).
2. Herz, J. et al., *EMBO J.*, **9**, 1769-1776 (1990).
3. Herz, J. and Strickland, D.K., *J. Clin. Invest.*, **108**, 779-784 (2001).
4. May, P. et al., *Ann. Med.*, **39**, 219-228 (2007).
5. Lillis, A.P. et al., *Physiol. Rev.*, **88**, 887-918 (2008).

VS,ST,KAA,PHC,MAM 04/19-1