

## ARG22444 anti-LRP1 antibody [A2Mr alpha-2] (PE)

Package: 50 tests

Store at: 4°C

### Summary

|                            |  |
|----------------------------|--|
| <b>Product Description</b> | PE-conjugated Mouse Monoclonal antibody [A2Mr alpha-2] recognizes LRP1<br>This antibody recognizes human CD91, also known as Pro-low-density lipoprotein receptor-related protein 1, Alpha-2-macroglobulin receptor or apolipoprotein E receptor. CD91 is a 4525 amino acid protein post translationally cleaved into 3 subunits, a 85kDa type I transmembrane carboxyl chain (LRP85) non-covalently bound to a 515kDa extracellular N-terminal subunit (LRP515) containing multiple EGF-like and LDL-receptor Class A and Class B domains. Additionally, there is an intracellular domain (LRPICD) which can be cleaved from the transmembrane domain by gamma secretase (May et al. 2004). Clone A2Mr alpha-2 detects an epitope within the LRP515 chain. CD91 is a multifunctional protein involved in processes including the phagocytosis and endocytosis of apoptotic cells (Nilsson et al. 2012), clearance of activated serum alpha-2-macroglobulin (Kristensen et al. 1990), modulation of the inflammatory response (Staudt et al. 2013) and acts as a receptor for Pseudomonas aeruginosa exotoxin A (Kounnas et al. 1992). Mouse anti Human CD91, clone A2Mr alpha-2 has been used extensively for the detection of CD91 by flow cytometry and immunohistochemistry on formalin fixed paraffin embedded tissues (Bourazopoulou et al. 2009). |
| <b>Tested Reactivity</b>   | Hu   |
| <b>Tested Application</b>  | FACS   |
| <b>Host</b>                | Mouse  |
| <b>Clonality</b>           | Monoclonal   |
| <b>Clone</b>               | A2Mr alpha-2   |
| <b>Isotype</b>             | IgG1   |
| <b>Target Name</b>         | LRP1   |
| <b>Species</b>             | Human  |
| <b>Immunogen</b>           | Purified alpha2 macroglobulin receptor   |
| <b>Conjugation</b>         | PE   |
| <b>Alternate Names</b>     | Apolipoprotein E receptor; APOER; Alpha-2-macroglobulin receptor; LRP-1; TGFBR5; LRP1A; APR; Pro-low-density lipoprotein receptor-related protein 1; A2MR; CD antigen CD91; CD91; IGFBP3R; LRP; LRP-85; LRPICD; LRP-515  |

### Application Instructions

|                          |   |          |
|--------------------------|---|----------|
| <b>Application table</b> | Application   | Dilution |
|                          | FACS  | Neat     |
| <b>Application Note</b>  | FACS: Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.<br>* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist. |          |

### Properties

|             |        |
|-------------|--------|
| <b>Form</b> | Liquid |
|-------------|--------|

|                     |  |
|---------------------|--|
| Purification        | Purification with Protein G.   |
| Buffer              | PBS, 0.09% Sodium azide, 1% BSA and 5% Sucrose.  |
| Preservative        | 0.09% Sodium azide   |
| Stabilizer          | 1% BSA and 5% Sucrose  |
| Storage instruction | Aliquot and store in the dark at 2-8°C. Keep protected from prolonged exposure to light. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use. |
| Note                | For laboratory research only, not for drug, diagnostic or other use.   |

## Bioinformation

|                |  |
|----------------|--|
| Gene Symbol    | LRP1   |
| Gene Full Name | low density lipoprotein receptor-related protein 1   |
| Background     | The protein encoded by this gene is an endocytic receptor involved in several cellular processes, including intracellular signaling, lipid homeostasis, and clearance of apoptotic cells. In addition, the encoded protein is necessary for the A2M-mediated clearance of secreted amyloid precursor protein and beta-amyloid, the main component of amyloid plaques found in Alzheimer patients. Expression of this gene decreases with age and has been found to be lower than controls in brain tissue from Alzheimer patients. [provided by RefSeq, Jan 2010]  |
| Function       | <p>Endocytic receptor involved in endocytosis and in phagocytosis of apoptotic cells. Required for early embryonic development. Involved in cellular lipid homeostasis. Involved in the plasma clearance of chylomicron remnants and activated LRPAP1 (alpha 2-macroglobulin), as well as the local metabolism of complexes between plasminogen activators and their endogenous inhibitors. May modulate cellular events, such as APP metabolism, kinase-dependent intracellular signaling, neuronal calcium signaling as well as neurotransmission.</p> <p>Functions as a receptor for Pseudomonas aeruginosa exotoxin A. [UniProt]</p> |
| Calculated Mw  | 505 kDa  |
| PTM            | <p>Cleaved into a 85 kDa membrane-spanning subunit (LRP-85) and a 515 kDa large extracellular domain (LRP-515) that remains non-covalently associated. Gamma-secretase-dependent cleavage of LRP-85 releases the intracellular domain from the membrane.</p> <p>The N-terminus is blocked.</p> <p>Phosphorylated on serine and threonine residues.</p> <p>Phosphorylated on tyrosine residues upon stimulation with PDGF. Tyrosine phosphorylation promotes interaction with SHC1.</p>   |