

ARG22443 anti-LRP1 antibody [A2Mr alpha-2]

Package: 100 µg
Store at: -20°C

Summary

Product Description	<p>Mouse Monoclonal antibody [A2Mr alpha-2] recognizes LRP1</p> <p>This antibody recognizes human CD91, also known as Prolow-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).</p>
Tested Reactivity	Hu
Tested Application	ELISA, FACS, ICC/IF, IHC-Fr, IP, WB
Host	Mouse
Clonality	Monoclonal
Clone	A2Mr alpha-2
Isotype	IgG1
Target Name	LRP1
Species	Human
Immunogen	Purified alpha2 macroglobulin receptor
Conjugation	Un-conjugated
Alternate Names	Apolipoprotein E receptor; APOER; Alpha-2-macroglobulin receptor; LRP-1; TGFBR5; LRP1A; APR; Prolow-density lipoprotein receptor-related protein 1; A2MR; CD antigen CD91; CD91; IGFBP3R; LRP; LRP-85; LRPICD; LRP-515

Application Instructions

Application table	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Application</th> <th style="width: 70%;">Dilution</th> </tr> </thead> <tbody> <tr> <td>ELISA</td> <td>Assay-dependent</td> </tr> <tr> <td>FACS</td> <td>Neat</td> </tr> <tr> <td>ICC/IF</td> <td>Assay-dependent</td> </tr> <tr> <td>IHC-Fr</td> <td>Assay-dependent</td> </tr> <tr> <td>IP</td> <td>Assay-dependent</td> </tr> <tr> <td>WB</td> <td>Assay-dependent (under non-reducing conditions)</td> </tr> </tbody> </table>	Application	Dilution	ELISA	Assay-dependent	FACS	Neat	ICC/IF	Assay-dependent	IHC-Fr	Assay-dependent	IP	Assay-dependent	WB	Assay-dependent (under non-reducing conditions)
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Application Note	WB: The antibody recognizes LRP1 under non-reducing conditions.														

FACS: Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul.

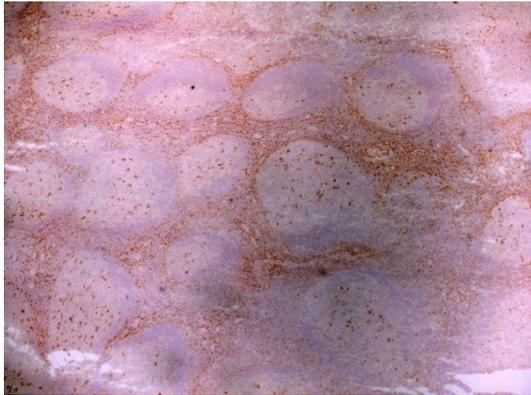
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS and 0.09% Sodium azide
Preservative	0.09% Sodium azide
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. 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.

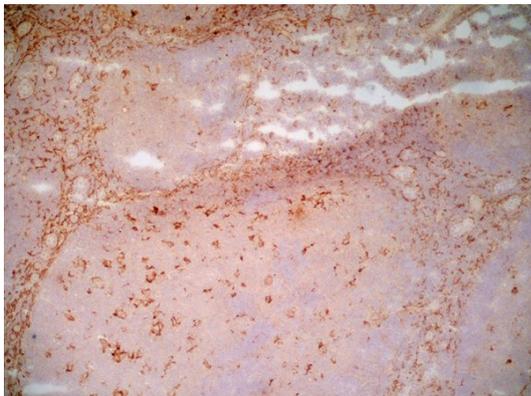
Bioinformation

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>



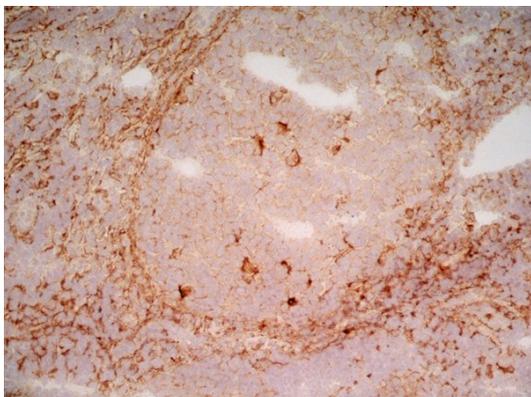
ARG22443 anti-LRP1 antibody [A2Mr alpha-2] IHC-Fr image

Immunohistochemistry: Human tonsil cryosection stained with ARG22443 anti-LRP1 antibody [A2Mr alpha-2]. (Low power).



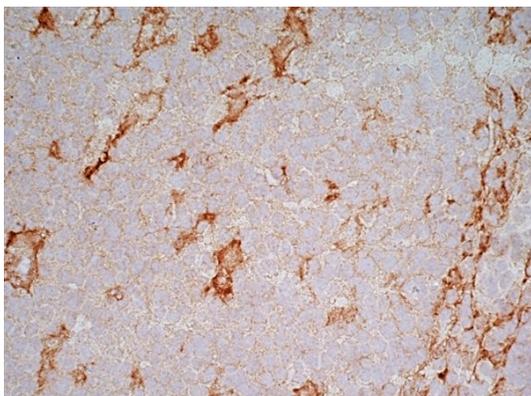
ARG22443 anti-LRP1 antibody [A2Mr alpha-2] IHC-Fr image

Immunohistochemistry: Human tonsil cryosection stained with ARG22443 anti-LRP1 antibody [A2Mr alpha-2]. (Medium power).



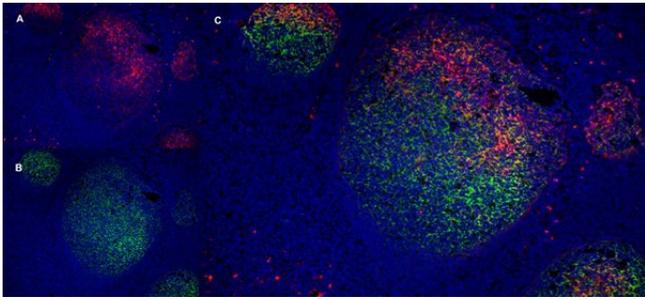
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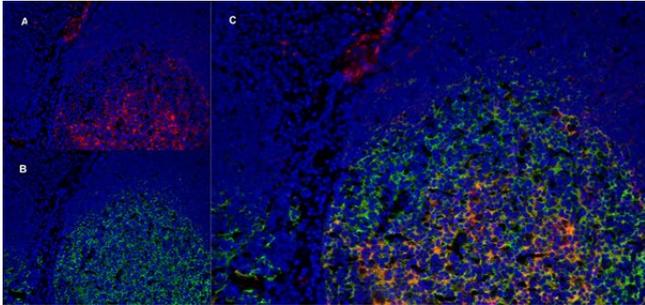
ARG22443 anti-LRP1 antibody [A2Mr alpha-2] IHC-Fr image

Immunohistochemistry: Human tonsil cryosection stained with ARG22443 anti-LRP1 antibody [A2Mr alpha-2]. (High power).



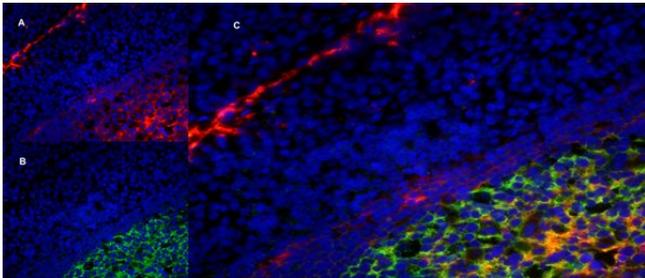
ARG22443 anti-LRP1 antibody [A2Mr alpha-2] IHC-Fr image

Immunohistochemistry: Human tonsil cryosection stained with ARG22443 anti-LRP1 antibody [A2Mr alpha-2], red in A and Mouse anti Human CD21, clone LB21, green in B. C is the merged image with nuclei counterstained blue using DAPI. (Low power).



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