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ASGR1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16133a

Product Information

Application	IHC-P, IHC-P-Leica, WB, E
Primary Accession	P07306
Other Accession	NP_001662.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB35320
Calculated MW	33186
Antigen Region	1-30

Additional Information

Gene ID	432
Other Names	Asialoglycoprotein receptor 1, ASGP-R 1, ASGPR 1, C-type lectin domain family 4 member H1, Hepatic lectin H1, HL-1, ASGR1, CLEC4H1
Target/Specificity	This ASGR1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human ASGR1.
Dilution	IHC-P~~1:100 IHC-P-Leica~~1:500 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ASGR1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ASGR1
Synonyms	CLEC4H1

Function	Transmembrane protein predominantly expressed on hepatocytes that plays a key role in endocytosis of plasma glycoproteins that lack terminal sialic acid residues. Specifically recognizes terminal galactose and N-acetylgalactosamine residues, facilitating the clearance of desialylated glycoproteins from circulation. Plays thereby a role in a variety of physiological processes, such as removal of desialylated platelets, elimination of activated lymphocytes and maintenance of serum glycoprotein homeostasis (PubMed:25485912). Plays a role in the removal of desialylated platelets by activating a feedback loop regulating thrombopoietin (TPO) expression via the JAK2- STAT3 signaling pathway (PubMed:25485912). Contributes also to recognition and elimination of activated lymphocytes by hepatocytes that can act as cytotoxic effectors (PubMed:21656538). May also play a physiological role in the regulatory network of lipid homeostasis (By similarity). Upon ligand binding, the receptor-ligand complex is internalized and trafficked to a sorting organelle, where dissociation occurs. The receptor is then recycled back to the cell surface.
Cellular Location	[Isoform H1a]: Cell membrane; Single-pass type II membrane protein
Tissue Location	Expressed exclusively in hepatic parenchymal cells.

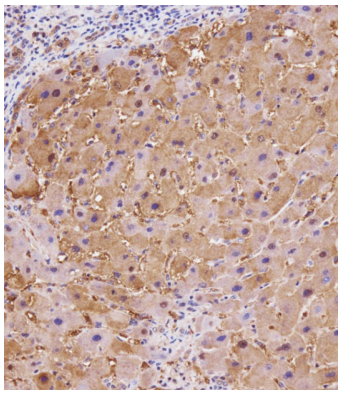
Background

Partially deglycosylated plasma glycoproteins and immunoglobulin IgA2 allotypes are efficiently and specifically removed from circulation by a receptor-mediated process. The asialoglycoprotein receptor binds to desialylated (galactosyl-terminal) glycoproteins. It transports these glycoproteins via a series of membrane vesicles and tubules to an acidic-sorting organelle where the receptor and ligand dissociate. Then the receptor is recycled back to the cell surface and the ligand is transported to the lysosomes for degradation. Alternatively spliced transcript variants encoding distinct isoforms have been identified.

References

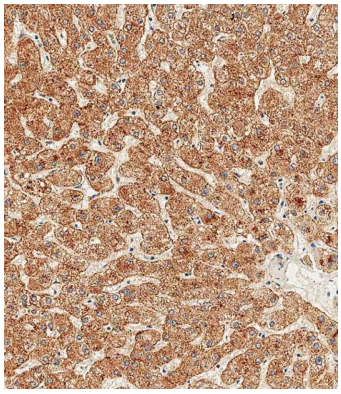
Yang, J., et al. Arch. Virol. 155(6):881-888(2010)
Liu, J., et al. PLoS ONE 5 (9), E12934 (2010) :
Sorensen, A.L., et al. Blood 114(8):1645-1654(2009)
Oh, J.H., et al. Mamm. Genome 16(12):942-954(2005)
Yik, J.H., et al. J. Biol. Chem. 277(43):40844-40852(2002)

Images

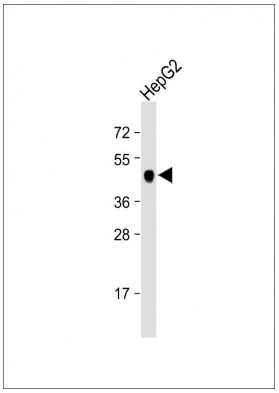


Immunohistochemical analysis of AP16133A on paraffin-embedded Human hepato carcinoma tissue. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval was performed by EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:100) for 1 hour at room temperature. Undiluted CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.

Immunohistochemical analysis of paraffin-embedded Human liver tissue using AP16133A performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde



at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.



Anti-ASGR1 Antibody (N-term) at 1:4000 dilution + HepG2 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 33 kDa Blocking/Dilution buffer: 5% NFDM/TBST.