PRODUCT INFORMATION



Asialoglycoprotein Receptor 1 Rabbit Polyclonal Antibody

Item No. 38095

Overview and Properties

Contents: This vial contains 50, 100, or 200 µl of protein A-affinity purified polyclonal antibody. Synonyms: ASGPR1, ASGR1, C-type Lectin Domain Family 4 Member H1, CLEC4H1, Hepatic

Lectin H1, HL-1

Immunogen: Recombinant human asialoglycoprotein receptor 1

Cross Reactivity: (+) Asialoglycoprotein receptor 1 Species Reactivity: (+) Human; other species not tested

Molecular Weight: 33 kDa Liauid Form:

-80°C (as supplied) Storage:

Stability: ≥1 year

Storage Buffer: 0.2 µm filtered solution in PBS

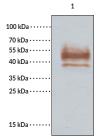
Rabbit Host: Isotype: **IgG**

Applications: ELISA, Immunohistochemistry-paraffin (IHC-P); Immunoprecipitation (IP), and Western

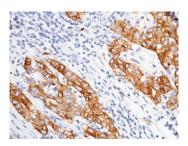
blot (WB); the recommended starting dilution is 1:5,000-1:10,000 for ELISA and 1:500-1:2,000 for IP and WB. The recommended concentration is 1-4 μ l/mg of lysate for IP. Other applications were not tested, therefore optimal working concentration/

dilution should be determined empirically.

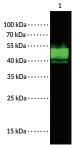
Images



Lane 1: 0.5 mg of HepG2 whole cell lysate immunoprecipitated using 2 μ l Asialoglycoprotein Receptor 1 Rabbit Polyclonal Antibody and 15 μ l of 50% protein G agarose

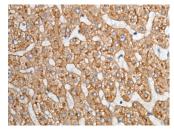


Immunohistochemical staining of formalin-fixed and paraffin-embedded human ASGR1 in human hepatoma cells using Asialoglycoprotein Receptor Polyclonal Antibody at a dilution of 1:1,000



Lane 1: HepG2 whole cell lysate (30 µg)

WB of Asialoglycoprotein Receptor 1 Rabbit Polyclonal Antibody at 1:500 dilution. A rabbit IgG Dylight™ 800 antibody was used ondary antibody. Performed under



Immunohistochemical staining of formalin-fixed and paraffin-embedded human ASGR1 in human cirrhosis tissue using Asialoglycoprotein Receptor 1 Rabbit Polyclonal Antibody at a dilution of 1:1,000.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website

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Description

Asialoglycoprotein receptor 1 is a calcium-dependent C-type lectin receptor. It is composed of a carbohydrate recognition domain, which primarily recognizes galactosides such as D-galactose and N-acetyl-D-galactosamine (GalNAc), stalk region, transmembrane domain, and cytoplasmic domain. Asialoglycoprotein receptor 1 is expressed in hepatocytes, and alternative splicing produces both long and short isoforms. The long isoform localizes to the cell membrane, while the short isoform exists as a soluble form that is both secreted and found in the cytoplasm. The asialoglycoprotein receptor is a trimer that is commonly formed by two H1 subunits and one H2 subunit. It is involved in the clearance of desialylated serum glycoproteins and hepatotropic virus entry via endocytosis. Ectopic expression of the gene encoding asialoglycoprotein receptor 1 (ASGR1) increases binding of hepatitis E virus to cells in vitro. Knockdown of ASGR1 increases survival and decreases liver injury and plasma TNF- α and IL-1 β levels in a mouse model of sepsis.

References

- 1. Das, S., Kudale, P., Dandekar, P., et al. Asialoglycoprotein receptor and targeting strategies. *Targeted intracellular drug delivery by receptor mediated endocytosis*. Devarajan, P., Dandekar, P., and D'Souza, A.A., editors, 1st edition, *Springer* (2019).
- 2. Liu, J., Hu, B., Yang, Y., et al. A new splice variant of the major subunit of human asialoglycoprotein receptor encodes a secreted form in hepatocytes. *PLoS One* **5(9)**, e12934 (2010).
- 3. Zhang, L., Tian, Y., Wen, Z., et al. Asialoglycoprotein receptor facilitates infection of PLC/PRF/5 cells by HEV through interaction with ORF2. J. Med. Virol. 88(12), 2186-2195 (2016).
- 4. Shi, R., Wang, J., Zhang, Z., *et al.* ASGR1 promotes liver injury in sepsis by modulating monocyte-to-macrophage differentiation via NF-κB/ATF5 pathway. *Life Sci.* **315**, 121339 (2023).

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