abcam

ab322528

# PE Anti-Asialoglycoprotein Receptor 1/HL-1 antibody [EPR22642-17]

Recombinant | RabMAb

## Key facts

| | |
|---|---|
| **Isotype** | IgG |
| **Host species** | Rabbit |
| **Conjugation** | PE |
| **Excitation/Emission** | Ex: 480;565nm, Em: 578nm |
| **Storage buffer** | pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 1% BSA |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | The exact immunogen used to generate this antibody is proprietary information. |
| **Clone number** | EPR22642-17 |
| **Purification technique** | Affinity purification Protein A |
| **Concentration** | 0.5 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

## Flow Cyt

**Tested**

| | |
|---|---|
| **Species** | Human |

| | |
|---|---|
| **Dilution info** | 1/5000 |
| **Notes** | - |

## ICC/IF

### Expected

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

## IHC-P

### Expected

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

# Target data

See full target information ASGR1

**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. (Microbial infection) Plays an essential role in ACE2-independent SARS-CoV-2 entry by acting as alternate receptor.

# Storage

| | |
|---|---|
| **Shipped at conditions** | Blue Ice |
| **Appropriate short-term storage duration** | 1-2 weeks |
| **Appropriate short-term storage conditions** | +4°C |
| **Appropriate long-term storage conditions** | +4°C |
| **Aliquoting information** | Upon delivery aliquot |
| **Storage information** | Avoid freeze / thaw cycle, Store in the dark |

## Notes

**Patented technology**
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

**What are the advantages of a recombinant monoclonal antibody?**
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

## Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

| | |
|---|---|
| **Activity summary** | The Asialoglycoprotein Receptor 1 (ASGR1) also known as ASGPR 1 or asialoglycoprotein receptor is a well-known protein with a critical role in the mechanism of recognizing and binding to asialoglycoproteins. It has a molecular mass of approximately 46 kDa. ASGR1 is expressed mostly in liver cells specifically hepatocytes. The unique characteristic of this receptor is its lectin-like nature which allows it to bind to specific sugar moieties present on desialylated glycoproteins. Through receptor-mediated endocytosis it facilitates their removal from the bloodstream. |
| **Biological function summary** | The function of ASGR1 extends significantly. It operates as part of the asialoglycoprotein receptor complex interfacing directly with the ligand proteins to mediate endocytosis. This process is essential in most mammalian systems for maintaining serum glycoprotein homeostasis. By clearing desialylated glycoproteins from circulation ASGR1 helps prevent potential adverse effects these |

| | |
|---|---|
| | molecules might cause like immune activation or interference with other biological functions. |
| **Pathways** | ASGR1 is integral to glycoprotein clearance pathways. It actively participates in the hepatic clearance pathway ensuring the regulation of serum glycoprotein levels. The removal of asialoglycoproteins involves interactions with several other hepatic proteins such as GalNAc transferase which can further facilitate the remodeling of glycoconjugates. Understanding these interactions is key for comprehending how the liver maintains overall metabolic balance. |
| **Associated diseases and disorders** | ASGR1 is linked to certain liver-related conditions. Dysfunction or aberrant expression of the ASGR1 receptor can relate to elevated levels of serum glycoproteins which might be observed in liver cirrhosis. Elevated glycoproteins can exacerbate the progression of liver diseases. Furthermore ASGR1 protein interaction with viral glycoproteins has implications in hepatitis infections where it may inadvertently facilitate viral entry into hepatocytes affecting liver function and contributing to disease pathology. |

## Product promise

**Tested**

We have tested this species and application combination and it works. It is covered by our product promise.

**Expected**

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

**Predicted**

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

**Not recommended**

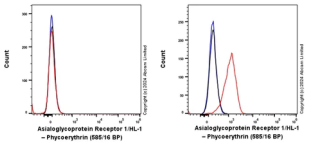
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

## 1 product image



# Flow Cytometry - PE Anti-Asialoglycoprotein Receptor 1/HL-1 antibody [EPR22642-17] (ab322528)

Flow cytometric analysis of HEK-293 (human embryonic kidney epithelial cell, Left) / HepG2 (human hepatocellular carcinoma epithelial cell, Right) cells labelling Asialoglycoprotein Receptor 1/HL-1 with ab322528 at 1/5000 dilution (0.01ug) (Red) compared with a Rabbit IgG monoclonal [EPR25A] - Isotype Control (Phycoerythrin) (ab209478) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

Negative control: HEK-293 (PMID: 34508778).
Gated on viable cells.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.