

Human ASGPR1 / ASGR1 Protein (His Tag)

Catalog Number: 10773-H07H



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Biological Solution Specialist

General Information

Gene Name Synonym:

ASGPR; ASGPR1; CLEC4H1; HL-1; ASGPR1; Asgr; Asgr-1; HL-1

Protein Construction:

A DNA sequence encoding the human ASGR1 isoform 1 (P07306) (Gln 62-Leu 291) was expressed, with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: His

Molecular Mass:

The recombinant human ASGR1 consists of 246 amino acids and has a calculated molecular mass of 28.8 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rhASGR1 is approximately 37 kDa due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

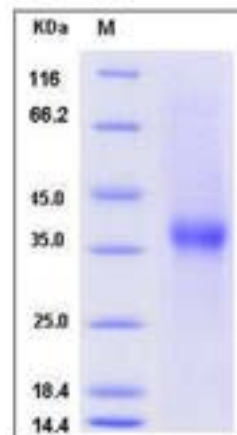
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

The asialoglycoprotein receptor (ASGPR), an endocytotic cell surface receptor expressed by hepatocytes, is triggered by triantennary binding to galactose residues of macromolecules such as asialoorosomucoid (ASOR). ASGPR belongs to the long-form subfamily of the C-type/Ca²⁺ dependent lectin family. It is a complex of two noncovalently-linked and highly homologous subunits, a major 42 kDa glycoprotein ASGPR1(MHL-1) and a minor 51 kDa glycoprotein ASGR2 (MHL-2). ASGPR1 is synthesized as a type II transmembrane protein that contains a cytosolic N-terminal domain, a single transmembrane segment, and an extracellular domain which contains two important structural regions. The first is a stalk domain that contributes to noncovalent oligomerization, and the second is a Ca²⁺-dependent carbohydrate binding domain at the very C-terminus that is unusually stabilized by three ions. The research regarded that ASGPR1 could be targeted for anti- hepatitis B virus (HBV) drug development.

References

1. Yang J, et al. (2006) Antisense oligonucleotides targeted against asialoglycoprotein receptor 1 block human hepatitis B virus replication. J Viral Hepat. 13(3): 158-65.
2. Li Y, et al. (2008) Targeted delivery of macromolecular drugs: asialoglycoprotein receptor (ASGPR) expression by selected hepatoma cell lines used in antiviral drug development. Curr Drug Deliv. 5(4): 299-302.

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