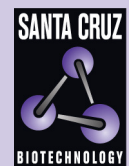


# ASGPR1 (N-18): sc-13467



The Power to Question

## BACKGROUND

The asialoglycoprotein receptor (ASGPR, also designated hepatic lectin) is a type II integral membrane protein and is expressed in hepatic cells. ASGPR is composed of two homologous subunits, ASGPR1 and ASGPR2, that form multimeric complexes. Both ASGPR1 and ASGPR2 contain four functional domains, which include a cytosolic domain, a transmembrane domain, a stalk domain and a carbohydrate recognition domain (CRD). The CRD allows ASGPR to bind glycoproteins with terminal galactose and N-acetylgalactosamine residues while in the presence of calcium. After binding, the ASGPR-glycoprotein complex is then internalized into the cell, where the receptor and ligand are dissociated and ASGPR returns to the cell membrane. ASGPR can also bind hepatitis B virus (HBV) and mediate the HBV infection of liver cells. The specific interaction with HBV makes ASGPR a potential target for therapeutic purposes.

## REFERENCES

1. Treichel, U., et al. 1995. High-yield purification and characterization of human asialoglycoprotein receptor. *Protein Expr. Purif.* 6: 251-255.
2. Braun, J.R., et al. 1996. The major subunit of the asialoglycoprotein receptor is expressed on the hepatocellular surface in mice lacking the minor receptor subunit. *J. Biol. Chem.* 271: 21160-21166.
3. Treichel, U., et al. 1997. Receptor-mediated entry of hepatitis B virus particles into liver cells. *Arch. Virol.* 142: 493-498.
4. Park, J.H., et al. 1998. Detection of the asialoglycoprotein receptor on cell lines of extrahepatic origin. *Biochem. Biophys. Res. Commun.* 244: 304-311.
5. Julyan, P.J., et al. 1999. Preliminary clinical study of the distribution of HPMA copolymers bearing doxorubicin and galactosamine. *J. Control. Release* 57: 281-290.
6. Meier, M., et al. 2000. Crystal structure of the carbohydrate recognition domain of the H1 subunit of the asialoglycoprotein receptor. *J. Mol. Biol.* 300: 857-865.

## CHROMOSOMAL LOCATION

Genetic locus: ASGR1 (human) mapping to 17p13.1; Asgr1 (mouse) mapping to 11 B3.

## SOURCE

ASGPR1 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of ASGPR1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-13467 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

ASGPR1 (N-18) is recommended for detection of ASGPR1 of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

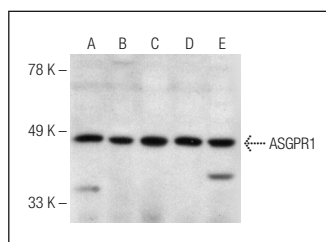
ASGPR1 (N-18) is also recommended for detection of ASGPR1 in additional species, including bovine.

Suitable for use as control antibody for ASGPR1 siRNA (h): sc-29746, ASGPR1 siRNA (m): sc-29747, ASGPR1 shRNA Plasmid (h): sc-29746-SH, ASGPR1 shRNA Plasmid (m): sc-29747-SH, ASGPR1 shRNA (h) Lentiviral Particles: sc-29746-V and ASGPR1 shRNA (m) Lentiviral Particles: sc-29747-V.

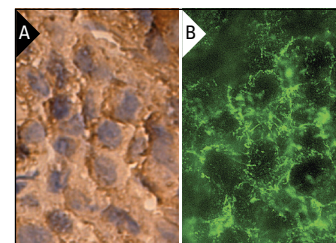
Molecular Weight of ASGPR1: 46 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or HeLa whole cell lysate: sc-2200.

## DATA



ASGPR1 (N-18): sc-13467. Western blot analysis of ASGPR1 expression in Hep G2 (A), EOC 20 (B), CTLL-2 (C), NIH/3T3 (D) and HeLa (E) whole cell lysates.



ASGPR1 (N-18): sc-13467. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tumor showing membrane and cytoplasmic localization (A) and immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization (B).

## SELECT PRODUCT CITATION

1. Basma, H., et al. 2009. Differentiation and transplantation of human embryonic stem cell-derived hepatocytes. *Gastroenterology* 136: 990-999.
2. Yang, J., et al. 2010. Fibronectin and asialoglycoprotein receptor mediate hepatitis B surface antigen binding to the cell surface. *Arch. Virol.* 155: 881-888.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.



Try **ASGPR1 (A-5): sc-393849** or **ASGPR1 (8D7): sc-52623**, our highly recommended monoclonal alternatives to ASGPR1 (N-18). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **ASGPR1 (A-5): sc-393849**.