SANTA CRUZ BIOTECHNOLOGY, INC.

ASGPR2 (N-17): sc-13471

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The asialoglycoprotein receptor (ASGPR, also designated hepatic lectin) is a type II integral membrane protein 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: ASGR2 (human) mapping to 17p13.1; Asgr2 (mouse) mapping to 11 B3.

SOURCE

ASGPR2 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of ASGPR2 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-13471 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

ASGPR2 (N-17) is recommended for detection of ASGPR2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ASGPR2 siRNA (h): sc-39872, ASGPR2 siRNA (m): sc-39873, ASGPR2 shRNA Plasmid (h): sc-39872-SH, ASGPR2 shRNA Plasmid (m): sc-39873-SH, ASGPR2 shRNA (h) Lentiviral Particles: sc-39872-V and ASGPR2 shRNA (m) Lentiviral Particles: sc-39873-V.

Molecular Weight (predicted) of ASGPR2: 35 kDa.

Molecular Weight (observed) of ASGPR2 monomer: 35-54 kDa.

Molecular Weight (observed) of ASGPR2 polymer: 98-102 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, A549 cell lysate: sc-2413 or MCF7 whole cell lysate: sc-2206.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS Satisfaction Guaranteed

Try **ASGPR2 (B-4): sc-377113** or **ASGPR2 (C-4): sc-393883**, our highly recommended monoclonal aternatives to ASGPR2 (N-17).