SANTA CRUZ BIOTECHNOLOGY, INC.

ASGPR2 (C-4): sc-393883

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.

CHROMOSOMAL LOCATION

Genetic locus: Asgr2 (mouse) mapping to 11 B3.

SOURCE

ASGPR2 (C-4) is a mouse monoclonal antibody raised against amino acids 81-155 mapping within an internal region of ASGPR2 of rat origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ASGPR2 (C-4) is available conjugated to agarose (sc-393883 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-393883 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393883 PE), fluorescein (sc-393883 FITC), Alexa Fluor® 488 (sc-393883 AF488), Alexa Fluor® 546 (sc-393883 AF546), Alexa Fluor® 594 (sc-393883 AF594) or Alexa Fluor® 647 (sc-393883 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393883 AF680) or Alexa Fluor® 790 (sc-393883 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ASGPR2 (C-4) is recommended for detection of ASGPR2 of mouse and rat origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 (m): sc-39873, ASGPR2 shRNA Plasmid (m): sc-39873-SH 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.

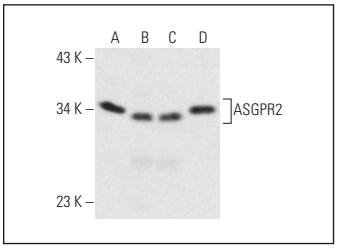
Molecular Weight (observed) of ASGPR2 polymer: 98-102 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214 or c4 whole cell lysate: sc-364186.

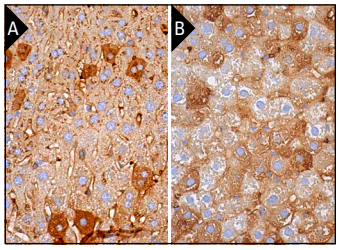
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ASGPR2 (C-4): sc-393883. Western blot analysis of ASGPR2 expression in KNRK (**A**), MCF7 (**B**), K-562 (**C**) and c4 (**D**) whole cell lysates.



ASGPR2 (C-4): sc-393883. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse liver (**A**) and rat liver (**B**) tissue showing cytoplasmic staining of hepatocytes.

STORAGE

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

RESEARCH USE

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