SANTA CRUZ BIOTECHNOLOGY, INC.

ASGPR2 (B-4): sc-377113

SANTA CRUZ BIOTECHNOLOGY

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.

CHROMOSOMAL LOCATION

Genetic locus: ASGR2 (human) mapping to 17p13.1.

SOURCE

ASGPR2 (B-4) is a mouse monoclonal antibody raised against amino acids 81-135 mapping within an internal region of ASGPR2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ASGPR2 (B-4) is available conjugated to agarose (sc-377113 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-377113 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377113 PE), fluorescein (sc-377113 FITC), Alexa Fluor® 488 (sc-377113 AF488), Alexa Fluor® 546 (sc-377113 AF546), Alexa Fluor® 594 (sc-377113 AF594) or Alexa Fluor® 647 (sc-377113 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377113 AF680) or Alexa Fluor® 790 (sc-377113 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ASGPR2 (B-4) is recommended for detection of ASGPR2 of human 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), 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).

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

Molecular Weight (predicted) of ASGPR2: 35 kDa.

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

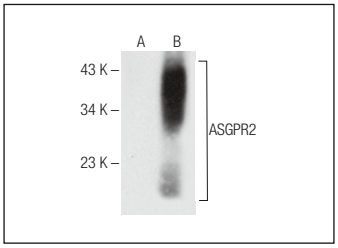
Molecular Weight (observed) of ASGPR2 polymer: 98-102 kDa.

Positive Controls: ASGPR2 (h): 293T Lysate: sc-172363.

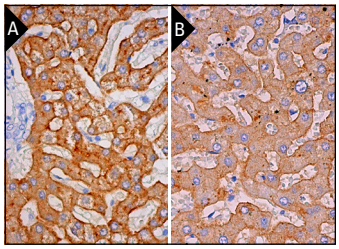
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



ASGPR2 (B-4): sc-377113. Western blot analysis of ASGPR2 expression in non-transfected: sc-117752 (**A**) and human ASGPR2 transfected: sc-172363 (**B**) 293T whole cell lysates.



ASGPR2 (B-4): sc-377113. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing membrane and cytoplasmic staining of hepatocytes (**A**,**B**).

SELECT PRODUCT CITATIONS

1. Javanbakht, H., et al. 2018. Liver-targeted anti-HBV single-stranded oligonucleotides with locked nucleic acid potently reduce HBV gene expression *in vivo*. Mol. Ther. Nucleic Acids 11: 441-454.

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.

PROTOCOLS

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