

# ASGPR2 (3-YD7): sc-134273

## 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

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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.
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8. Park, J.H., et al. 2006. Detection of surface asialoglycoprotein receptor expression in hepatic and extra-hepatic cells using a novel monoclonal antibody. *Biotechnol. Lett.* 28: 1061-1069.
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## CHROMOSOMAL LOCATION

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

## SOURCE

ASGPR2 (3-YD7) is a mouse monoclonal antibody raised against recombinant ASGPR2 protein of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

ASGPR2 (3-YD7) is recommended for detection of ASGPR2 of human 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)] 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.

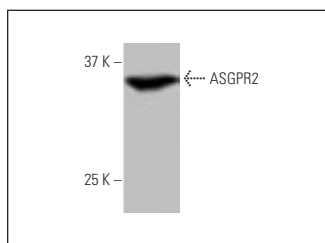
Molecular Weight (observed) of ASGPR2 polymer: 98-102 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, human lung extract: sc-363767 or A549 cell lysate: sc-2413.

## 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).

## DATA



ASGPR2 (3-YD7): sc-134273. Western blot analysis of ASGPR2 expression in K-562 whole cell lysate.

## 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](http://www.scbt.com) for detailed protocols and support products.