Product name: Anti-Glypican 3 antibody [EPR20569] ab207080

Description: Rabbit monoclonal [EPR20569] to Glypican 3

Host species: Rabbit

Tested applications: Suitable for: WB, IHC-P, ICC/IF, Flow Cyt, IP

Species reactivity: Reacts with: Human

Immunogen: Recombinant fragment within Human Glypican 3 aa 1-250. The exact sequence is proprietary. Database link: P51654


General notes: This product is a recombinant monoclonal antibody, which offers several advantages including:
- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

Properties

Form: Liquid


Storage buffer: Preservative: 0.01% Sodium azide
Constituents: 40% Glycerol, 0.05% BSA, PBS

Purity: Protein A purified

Clonality: Monoclonal

Clone number: EPR20569

Isotype: IgG
Applications

Our Abpromise guarantee covers the use of ab207080 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB</td>
<td>1/1000</td>
<td>Detects a band of approximately 40,70 kDa (predicted molecular weight: 65 kDa).</td>
</tr>
<tr>
<td>IHC-P</td>
<td>1/500</td>
<td>Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.</td>
</tr>
<tr>
<td>ICC/IF</td>
<td>1/500</td>
<td></td>
</tr>
<tr>
<td>Flow Cyt</td>
<td>1/500</td>
<td></td>
</tr>
<tr>
<td>IP</td>
<td>1/40</td>
<td></td>
</tr>
</tbody>
</table>

Target

Function

Cell surface proteoglycan that bears heparan sulfate. Inhibits the dipeptidyl peptidase activity of DPP4. May be involved in the suppression/modulation of growth in the predominantly mesodermal tissues and organs. May play a role in the modulation of IGF2 interactions with its receptor and thereby modulate its function. May regulate growth and tumor predisposition.

Tissue specificity

Highly expressed in lung, liver and kidney.

Involvement in disease

Defects in GPC3 are the cause of Simpson-Golabi-Behmel syndrome type 1 (SGBS1) [MIM:312870]; also known as Simpson dysmorphia syndrome (SDYS). SGBS is a condition characterized by pre- and postnatal overgrowth (gigantism) with visceral and skeletal anomalies.

Sequence similarities

Belongs to the glypican family.

Cellular localization

Cell membrane and Secreted > extracellular space.

Images
Immunohistochemical analysis of paraffin-embedded human placenta tissue labeling Glypican 3 with ab207080 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Positive staining on human placenta (PMID: 12788060; PMID: 11193214). Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Immunofluorescent analysis of 100% methanol-fixed HepG2 (human liver hepatocellular carcinoma cell line) cells labeling Glypican 3 with ab207080 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing membranous staining on HepG2 cell line.

The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (ab195889) (red) at 1/200 dilution.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution.

Negative control: Raji (PMID: 9371521).
Immunohistochemical analysis of paraffin-embedded human hepatocellular cancer tissue labeling Glypican 3 with ab207080 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Positive staining on human hepatocellular cancer (PMID: 12788060). Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Immunohistochemical analysis of paraffin-embedded human liver tissue labeling Glypican 3 with ab207080 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use.

**Negative control:** No staining on human liver (PMID: 12788060).

Counter stained with Hematoxylin.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
All lanes: Anti-Glypican 3 antibody [EPR20569] (ab207080) at 1/1000 dilution

Lane 1: HepG2 (human liver hepatocellular carcinoma cell line) whole cell lysate
Lane 2: Raji (human Burkitt's lymphoma) whole cell lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Developed using the ECL technique.

Predicted band size: 65 kDa
Observed band size: 40/70 kDa

why is the actual band size different from the predicted?

Exposure time: 1 second

Blocking/Dilution buffer: 5% NFDM/TBST.

The observed molecular weight is consistent with the literature (PMID: 12851874; PMID: 25553423).

All lanes: Anti-Glypican 3 antibody [EPR20569] (ab207080) at 1/1000 dilution

Lane 1: Huh7 (human hepatocellular carcinoma epithelial cell line) whole cell lysate
Lane 2: Human fetal liver lysate

Lysates/proteins at 20 µg per lane.

Secondary
Lane 1: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution
Lane 2: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/50000 dilution

Developed using the ECL technique.
**Predicted band size:** 65 kDa

**Observed band size:** 40,70 kDa  
*why is the actual band size different from the predicted?*

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time: Lane 1: 3 minutes; Lane 2: 1 minute.

The observed molecular weight is consistent with the literature (PMID: 12851874; PMID: 25553423).

**Left panel - Negative control:** Flow cytometric analysis of 4% paraformaldehyde-fixed Raji (human Burkitt’s lymphoma) cell line labelling Glypican 3 with ab207080 at 1/500 dilution (red) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue).

Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/2000 dilution was used as the secondary antibody.

**Right panel:** Flow cytometric analysis of 4% paraformaldehyde-fixed HepG2 (human liver hepatocellular carcinoma cell line) cell line labelling Glypican 3 with ab207080 at 1/500 dilution (red) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue).

Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/2000 dilution was used as the secondary antibody.

---

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours

- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit [https://www.abcam.com/abpromise](https://www.abcam.com/abpromise) or contact our technical team.
Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors