**Product datasheet**

**Anti-Glypican 3 antibody [9C2] ab129381**

**Overview**

<table>
<thead>
<tr>
<th>Product name</th>
<th>Anti-Glypican 3 antibody [9C2]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Mouse monoclonal [9C2] to Glypican 3</td>
</tr>
<tr>
<td>Host species</td>
<td>Mouse</td>
</tr>
<tr>
<td>Tested applications</td>
<td>Suitable for: WB, ELISA, IHC-P, Flow Cyt, ICC/IF</td>
</tr>
<tr>
<td>Species reactivity</td>
<td>Reacts with: Rat, Human</td>
</tr>
<tr>
<td>Immunogen</td>
<td>Purified recombinant fragment of Human Glypican 3 expressed in <em>E. Coli.</em></td>
</tr>
<tr>
<td>Positive control</td>
<td>HepG2, HEK293, SK-N-SH, PC12, F9 and Mouse liver cell lysates. HeLa and Jurkat cells; Human liver cancer tissue.</td>
</tr>
</tbody>
</table>

**Properties**

<table>
<thead>
<tr>
<th>Form</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage instructions</td>
<td>Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C long term.</td>
</tr>
</tbody>
</table>
| Storage buffer        | Preservative: 0.05% Sodium azide  
                        Constituent: 99% PBS |
| Purity                | Protein G purified |
| Purification notes    | Purified from tissue culture supernatant. |
| Clonality             | Monoclonal |
| Clone number          | 9C2    |
| Isotype               | IgG1   |

**Applications**

Our Abpromise guarantee covers the use of **ab129381** in the following tested applications.

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

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<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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**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**

ab129381 at 1/200 dilution staining Glypican 3 in paraffin-embedded Human liver cancer tissue by Immunohistochemistry, with DAB staining.

**Application**

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELISA</td>
<td>1/10000.</td>
<td></td>
</tr>
<tr>
<td>IHC-P</td>
<td>1/200 - 1/1000.</td>
<td></td>
</tr>
<tr>
<td>Flow Cyt</td>
<td>1/200 - 1/400. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.</td>
<td></td>
</tr>
<tr>
<td>ICC/IF</td>
<td>1/200 - 1/1000.</td>
<td></td>
</tr>
</tbody>
</table>
Western blot - Anti-Glypican 3 antibody [9C2] (ab129381)

**Lane 1:** Wild-type HAP1 (milk) whole cell lysate (20 µg)
**Lane 2:** GPC3 (Glypican 3) knockout HAP1 (milk) whole cell lysate (20 µg)

**Lanes 1 - 2:** Merged signal (red and green). Green - ab129381 observed at 70 kDa. Red - loading control, ab181602, observed at 37 kDa.

ab129381 was shown to specifically react with Glypican 3 in wild-type HAP1 cells as signal was lost in GPC3 (Glypican 3) knockout cells. Wild-type and GPC3 (Glypican 3) knockout samples were subjected to SDS-PAGE. ab129381 and ab181602 (Rabbit anti-GAPDH loading control) were incubated overnight at 4°C at 1/500 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Mouse IgG H&L (IRDye® 800CW) preabsorbed ab216772 and Goat anti-Rabbit IgG H&L (IRDye® 680RD) preabsorbed ab216777 secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.

ab129381 at 1/200 dilution (green) or negative control (red) staining Glypican 3 in Jurkat cells by Flow Cytometry.

Flow Cytometry - Anti-Glypican 3 antibody [9C2] (ab129381)

ab129381 at 1/200 dilution staining Glypican 3 in HeLa cells (green) by immunofluorescence. DNA is stained with DRAQ5 dye (blue) and actin filaments with Alexa Fluor-555 phalloidin (red).

Immunocytochemistry/ Immunofluorescence - Anti-Glypican 3 antibody [9C2] (ab129381)
ab129381 at 1/200 dilution staining Glypican 3 in paraffin-embedded Human liver cancer tissue by Immunohistochemistry, with DAB staining.

**Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Glypican 3 antibody [9C2] (ab129381)**

**Western blot - Anti-Glypican 3 antibody [9C2] (ab129381)**

All lanes: Anti-Glypican 3 antibody [9C2] (ab129381) at 1/500 dilution

Lane 1: HepG2 cell lysate
Lane 2: HEK293 cell lysate
Lane 3: Jurkat cell lysate
Lane 4: SK-N-SH cell lysate
Lane 5: PC12 cell lysate
Lane 6: F7 cell lysate
Lane 7: Mouse liver cell lysate

**Predicted band size:** 66 kDa

Anti-Glypican 3 antibody [9C2] (ab129381) at 1/500 dilution + Recombinant Glypican 3 protein (aa 55-200)

**Predicted band size:** 66 kDa

The expected molecular weight of the recombinant protein is 29 kDa.

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