**Product datasheet**

**Anti-Podoplanin / gp36 antibody [RTD4E10] ab11936**

<table>
<thead>
<tr>
<th>★★★★★ 10 Abreviews</th>
<th>48 References</th>
<th>2 Images</th>
</tr>
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</table>

**Overview**

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product name</strong></td>
<td>Anti-Podoplanin / gp36 antibody [RTD4E10]</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>Syrian hamster monoclonal [RTD4E10] to Podoplanin / gp36</td>
</tr>
<tr>
<td><strong>Host species</strong></td>
<td>Syrian hamster</td>
</tr>
<tr>
<td><strong>Specificity</strong></td>
<td>The monoclonal antibody will detect podoplanin on the surface of mouse lymphatic endothelial cells and some epithelial cell types by immunostaining or immunohistochemistry. This antibody is designed to detect podoplanin, which is also referred to as gp38 (mouse and rat) and gp36 (human).</td>
</tr>
<tr>
<td><strong>Tested applications</strong></td>
<td>Suitable for: IHC-P, IP, WB</td>
</tr>
<tr>
<td><strong>Species reactivity</strong></td>
<td><strong>Reacts with:</strong> Mouse</td>
</tr>
<tr>
<td></td>
<td><strong>Does not react with:</strong> Human</td>
</tr>
<tr>
<td><strong>Immunogen</strong></td>
<td>Tissue, cells or virus corresponding to Mouse Podoplanin/ gp36. Monoclonal antibodies were produced by immunizing Syrian hamsters with a murine thymic stromal cell line.</td>
</tr>
<tr>
<td><strong>Positive control</strong></td>
<td>Mouse normal skin FFPE tissue sections (IHC-P)</td>
</tr>
</tbody>
</table>

**Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td>Liquid</td>
</tr>
<tr>
<td><strong>Storage instructions</strong></td>
<td>Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.</td>
</tr>
<tr>
<td><strong>Storage buffer</strong></td>
<td>pH: 7.40</td>
</tr>
<tr>
<td></td>
<td>Constituent: PBS</td>
</tr>
<tr>
<td><strong>Purity</strong></td>
<td>Protein G purified</td>
</tr>
<tr>
<td><strong>Purification notes</strong></td>
<td>Purified from cell culture supernatant.</td>
</tr>
<tr>
<td><strong>Clonality</strong></td>
<td>Monoclonal</td>
</tr>
<tr>
<td><strong>Clone number</strong></td>
<td>RTD4E10</td>
</tr>
<tr>
<td><strong>Isotype</strong></td>
<td>IgG1</td>
</tr>
</tbody>
</table>

**Applications**

Our Abpromise guarantee covers the use of **ab11936** in the following tested applications.
Function
May be involved in cell migration and/or actin cytoskeleton organization. When expressed in keratinocytes, induces changes in cell morphology with transfected cells showing an elongated shape, numerous membrane protrusions, major reorganization of the actin cytoskeleton, increased motility and decreased cell adhesion. Required for normal lung cell proliferation and alveolus formation at birth. Induces platelet aggregation. Does not have any effect on folic acid or amino acid transport. Does not function as a water channel or as a regulator of aquaporin-type water channels.

Tissue specificity

Sequence similarities
Belongs to the podoplanin family.

Post-translational modifications
Extensively O-glycosylated. Contains sialic acid residues. O-glycosylation is necessary for platelet aggregation activity. The N-terminus is blocked.

Cellular localization

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>IHC-P</td>
<td>★★★★★</td>
<td>1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.</td>
</tr>
<tr>
<td>IP</td>
<td></td>
<td>Use a concentration of 2 - 10 µg/ml.</td>
</tr>
<tr>
<td>WB</td>
<td>★★★★★</td>
<td>Use a concentration of 1 - 5 µg/ml. Predicted molecular weight: 36 kDa.</td>
</tr>
</tbody>
</table>
IHC image of Podoplanin / gp36 staining in a section of formalin-fixed paraffin-embedded normal mouse skin. The section was pretreated using pressure cooker heat mediated antigen retrieval with sodium citrate buffer (pH6). Non-specific protein-protein interactions were then blocked in TBS containing 0.025% (v/v) Triton X-100, 0.3M (w/v) glycine and 1% (w/v) BSA for 1h at room temperature. The section was then incubated overnight at +4°C in TBS containing 0.025% (v/v) Triton X-100 and 1% (w/v) BSA with ab11936 at 1/250. The secondary antibody (shown in green) was ab180063 at 1/500 (Goat Anti-Syrian hamster IgG H&L (Alexa Fluor® 488) and counterstained using ab190573, Rabbit monoclonal [EP1332Y] to alpha Tubulin - Microtubule Marker (Alexa Fluor® 647), at 1/250 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue). The section was then mounted using Fluoromount®.

The negative control (inset) is a secondary-only assay to demonstrate low non-specific binding of the secondary antibody.

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

For other IHC staining systems (automated and non-automated), customers should optimize variable parameters such as antigen retrieval conditions, antibody concentrations and incubation times.

ab11936 staining Podoplanin / gp36 in murine skin tissue sections by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections).

Tissue was fixed in paraformaldehyde and an enzymatic antigen retrieval step was performed using Protein K. Samples were then blocked with 5% serum for 30 minutes at room temperature and then incubated with ab11936 at a 1/400 dilution for 16 hours at 4°C. The secondary used was a biotin conjugated goat anti-hamster IgG used at a 1/500 dilution.

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