### Product datasheet

**Anti-Claudin 1 antibody [SP128] ab115783**

**Overview**

<table>
<thead>
<tr>
<th>Product name</th>
<th>Anti-Claudin 1 antibody [SP128]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Rabbit monoclonal [SP128] to Claudin 1</td>
</tr>
<tr>
<td>Host species</td>
<td>Rabbit</td>
</tr>
<tr>
<td>Tested applications</td>
<td>Suitable for: IHC-P, Flow Cyt</td>
</tr>
<tr>
<td>Species reactivity</td>
<td>Reacts with: Human</td>
</tr>
<tr>
<td></td>
<td>Predicted to work with: Mouse, Rat, Cow, Pig</td>
</tr>
<tr>
<td>Immunogen</td>
<td>Synthetic peptide within Human Claudin 1 aa 150 to the C-terminus (C terminal). The exact sequence is proprietary. Database link: O95832</td>
</tr>
<tr>
<td>Positive control</td>
<td>Human liver carcinoma tissue</td>
</tr>
<tr>
<td>General notes</td>
<td>This product is FOR RESEARCH USE ONLY. For commercial use, please contact <a href="mailto:partnerships@abcam.com">partnerships@abcam.com</a>.</td>
</tr>
</tbody>
</table>

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.

**Properties**

<table>
<thead>
<tr>
<th>Form</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage instructions</td>
<td>Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.</td>
</tr>
</tbody>
</table>
| Storage buffer | pH: 7.60  
Preservative: 0.1% Sodium azide  
Constituents: PBS, 1% BSA |
| Purity       | Protein A/G purified |
Purification notes
Purified from TCS by protein A/G.

Clonality
Monoclonal

Clone number
SP128

Isotype
IgG

Applications

Our Abpromise guarantee covers the use of ab115783 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>IHC-P</td>
<td>1/200. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.</td>
<td></td>
</tr>
<tr>
<td>Flow Cyt</td>
<td>1/100. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.</td>
<td></td>
</tr>
</tbody>
</table>

Target

Function
Claudins function as major constituents of the tight junction complexes that regulate the permeability of epithelia. While some claudin family members play essential roles in the formation of impermeable barriers, others mediate the permeability to ions and small molecules. Often, several claudin family members are coexpressed and interact with each other, and this determines the overall permeability. CLDN1 is required to prevent the paracellular diffusion of small molecules through tight junctions in the epidermis and is required for the normal barrier function of the skin. Required for normal water homeostasis and to prevent excessive water loss through the skin, probably via an indirect effect on the expression levels of other proteins, since CLDN1 itself seems to be dispensable for water barrier formation in keratinocyte tight junctions (PubMed:23407391).
(Microbial infection) Acts as a receptor for hepatitis C virus in hepatocytes (PubMed:17325668).
Acts as a receptor for dengue virus (PubMed:24074594).

Tissue specificity
Strongly expressed in liver and kidney. Expressed in heart, brain, spleen, lung and testis.

Involvement in disease
Ichthyosis-sclerosing cholangitis neonatal syndrome

Sequence similarities
Belongs to the claudin family.

Cellular localization

Images
Flow cytometric analysis of rabbit anti-Claudin 1 (SP128) antibody ab115783 (1/100) in HepG2 cells (green) compared to negative control of rabbit IgG (blue).

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Claudin 1 antibody [SP128] (ab115783)

Staining of Human Claudin 1 in a Formalin/PFA-fixed paraffin-embedded section of Human Liver Carcinoma using ab115783 at a dilution of 1/200.

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