Overview

**Product name**
Anti-Claudin 4 antibody

**Description**
Rabbit polyclonal to Claudin 4

**Host species**
Rabbit

**Tested applications**
Suitable for: WB, ICC/IF, IHC-P

**Species reactivity**
Reacts with: Mouse, Human
Predicted to work with: Pig

**Immunogen**
Synthetic peptide within Human Claudin 4 aa 150 to the C-terminus. The exact sequence is proprietary.
Database link: O14493

**Positive control**
Tested with tonsil and ovarian carcinoma cells.

Properties

**Form**
Liquid

**Storage instructions**
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.

**Storage buffer**

- pH: 7.6
- Preservative: 0.1% Sodium azide
- Constituents: PBS, 1% BSA

**Purity**
Immunogen affinity purified

**Clonality**
Polyclonal

**Isotype**
IgG

Applications

Our Abpromise guarantee covers the use of **ab15104** 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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Function
Plays a major role in tight junction-specific obliteration of the intercellular space.

Involvement in disease
Note=CLDN4 is located in the Williams-Beuren syndrome (WBS) critical region. WBS results from a hemizygous deletion of several genes on chromosome 7q11.23, thought to arise as a consequence of unequal crossing over between highly homologous low-copy repeat sequences flanking the deleted region.

Sequence similarities
Belongs to the claudin family.

Cellular localization
Cell junction > tight junction. Cell membrane.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Claudin 4 antibody (ab15104)
Lean QY et al. PLoS One (2015) Reproduced under the Creative Commons license http://creativecommons.org/licenses/by/4.0/

Immunohistochemical analysis of healthy and colitis mouse colon sections (untreated and treated with enoxaparin) labeling claudin-4 with ab15104 at 1/200. ab7090, anti-rabbit immunoglobulin G conjugated to horseradish peroxidase (HRP) at 1/300 was used as the secondary antibody. ab64238 at 1/50 was used to develop the histological signal.

Antigen retrieval was performed by incubating the sections for 10 minutes at 97°C in 1 mM EDTA buffer, pH 8.0 or 10 mM citrate buffer, pH 6.0.

Control, C; untreated colitis, DSS; oral enoxaparin, OE; intraperitoneal injection of enoxaparin, IPE.

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<tr>
<td>WB</td>
<td>🌟🌟🌟🌟🌟</td>
<td>Use a concentration of 1 µg/ml. Detects a band of approximately 20 kDa (predicted molecular weight: 22 kDa).</td>
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<tr>
<td>ICC/IF</td>
<td>🌟🌟🌟🌟🌟</td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>IHC-P</td>
<td>🌟🌟🌟🌟🌟</td>
<td>1/200. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.</td>
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Images

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Claudin 4 antibody (ab15104)
Lean QY et al. PLoS One (2015) Reproduced under the Creative Commons license http://creativecommons.org/licenses/by/4.0/
Antibody: Anti-Claudin 4 antibody (ab15104)

**Western blot**

- **Primary antibody:** Anti-Claudin 4 antibody (ab15104) at 1 µg/ml + SHSY-5Y (Human neuroblastoma cell line) Whole Cell Lysate at 10 µg
- **Secondary:** Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (ab97080) at 1/5000 dilution
- Developed using the ECL technique.
- Performed under reducing conditions.

**Predicted band size:** 22 kDa
**Observed band size:** 20 kDa

**why is the actual band size different from the predicted?**
**Additional bands at:** 125 kDa, 34 kDa, 35 kDa. We are unsure as to the identity of these extra bands.

**Exposure time:** 30 seconds

**Immunohistochemistry**

- **Tissue:** Formalin fixed paraffin embedded human tonsil stained with ab15104 (1/200, 10 min at room temperature).

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