**Product name**
Anti-Caveolin-2 antibody [EPR2220] - Caveolae Marker

**Description**
Rabbit monoclonal [EPR2220] to Caveolin-2 - Caveolae Marker

**Host species**
Rabbit

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

**Species reactivity**
Reacts with: Human

**Immunogen**
Synthetic peptide within Human Caveolin-2. The exact sequence is proprietary. Database link: P51636

**Positive control**

**General notes**
Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

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 instructions**
Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C.

**Storage buffer**
pH: 7.20
Preservative: 0.05% Sodium azide
Constituents: 0.1% BSA, 40% Glycerol, 9.85% Tris glycine, 50% Tissue culture supernatant
**Purity**
Tissue culture supernatant

**Clonality**
Monoclonal

**Clone number**
EPR2220

**Isotype**
IgG

**Applications**

Our Abpromise guarantee covers the use of ab79397 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>
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<tbody>
<tr>
<td>WB</td>
<td>1/5000 - 1/10000. Predicted molecular weight: 18 kDa.</td>
<td></td>
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<tr>
<td>IP</td>
<td>1/10</td>
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<tr>
<td>IHC-P</td>
<td>1/100 - 1/250. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.</td>
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<tr>
<td>Flow Cyt</td>
<td>1/2000</td>
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<tr>
<td>ICC/IF</td>
<td>1/100 - 1/250.</td>
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**Target**

**Function**
May act as a scaffolding protein within caveolar membranes. Interacts directly with G-protein alpha subunits and can functionally regulate their activity. Acts as an accessory protein in conjunction with CAV1 in targeting to lipid rafts and driving caveolae formation. The Ser-36 phosphorylated form has a role in modulating mitosis in endothelial cells. Positive regulator of cellular mitogenesis of the MAPK signaling pathway. Required for the insulin-stimulated nuclear translocation and activation of MAPK1 and STAT3, and the subsequent regulation of cell cycle progression.

**Tissue specificity**
Expressed in endothelial cells, smooth muscle cells, skeletal myoblasts and fibroblasts.

**Sequence similarities**
Belongs to the caveolin family.

**Post-translational modifications**
Phosphorylated on serine and tyrosine residues. CAV1 promotes phosphorylation on Ser-23 which then targets the complex to the plasma membrane, lipid rafts and caveolae. Phosphorylation on Ser-36 appears to modulate mitosis in endothelial cells (By similarity). Phosphorylation on both Tyr-19 and Tyr-27 is required for insulin-induced 'Ser-727' phosphorylation of STAT3 and its activation. Phosphorylation on Tyr-19 is required for insulin-induced phosphorylation of MAPK1 and DNA binding of STAT3. Tyrosine phosphorylation is induced by both EGF and insulin.

**Cellular localization**
Western blot - Anti-Caveolin-2 antibody [EPR2220] - Caveolae Marker (ab79397) at 1/5000 dilution + HeLa cell lysate at 10 µg

Secondary
Goat anti-rabbit HRP at 1/2000 dilution

**Predicted band size:** 18 kDa
**Observed band size:** 20 kDa

why is the actual band size different from the predicted?

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Caveolin-2 antibody [EPR2220] - Caveolae Marker (ab79397)

ab79397 at 1/100 dilution staining Caveolin-2 in human uterus by Immunohistochemistry using paraffin-embedded tissue. Note staining of endothelial cells and smooth muscles.

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.

Immunocytochemistry/ Immunofluorescence - Anti-Caveolin-2 antibody [EPR2220] - Caveolae Marker (ab79397)

ab79397 at 1/100 dilution staining Caveolin-2 in HeLa cells by Immunofluorescence.
Flow cytometry analysis of HeLa (human cervix adenocarcinoma) cells labeling Caveolin-2 (red) with ab79397 at a 1/2000 dilution. Cells were fixed with 80% methanol and permeabilized with 0.1% Tween-20. A goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) was used as the secondary antibody at a 1/2000 dilution. Black - Rabbit monoclonal IgG (ab172730). Blue (unlabeled control) - Cells without incubation with the primary and secondary antibodies.

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

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