**Product datasheet**

**Anti-Presenilin 2/AD5 antibody [APS 26] ab15549**

2 References  4 Images

### Overview

**Product name**  Anti-Presenilin 2/AD5 antibody [APS 26]

**Description**  Mouse monoclonal [APS 26] to Presenilin 2/AD5

**Host species**  Mouse

**Specificity**  No cross-reactivity is seen with presenilin 1.

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

**Species reactivity**  Reacts with: Mouse, Rat, Human

**Immunogen**  Synthetic peptide corresponding to Human Presenilin 2/AD5 aa 317-334.

**Sequence:** LPYDPEMEEDSYDSFGEP

**Positive control**  RAW cells.

**General notes**  Previously labelled as Presenilin 2.

---

### 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. Avoid freeze / thaw cycle.

**Storage buffer**  Preservative: 0.05% Sodium azide

**Constituents:**  99% PBS, 0.1% BSA

**Purity**  Protein G purified

**Clonality**  Monoclonal

**Clone number**  APS 26

**Isotype**  IgG1

---

### Applications

Our Abpromise guarantee covers the use of ab15549 in the following tested applications.
Probable catalytic subunit of the gamma-secretase complex, an endoprotease complex that catalyzes the intramembrane cleavage of integral membrane proteins such as Notch receptors and APP (beta-amyloid precursor protein). Requires the other members of the gamma-secretase complex to have a protease activity. May play a role in intracellular signaling and gene expression or in linking chromatin to the nuclear membrane. May function in the cytoplasmic partitioning of proteins.

### Tissue specificity
Isoform 1 is seen in the placenta, skeletal muscle and heart while isoform 2 is seen in the heart, brain, placenta, liver, skeletal muscle and kidney.

### Involvement in disease
Defects in PSEN2 are the cause of Alzheimer disease type 4 (AD4) [MIM:606889]. AD is an autosomal dominant Alzheimer disease. Alzheimer disease is a neurodegenerative disorder characterized by progressive dementia, loss of cognitive abilities, and deposition of fibrillar amyloid proteins as intraneuronal neurofibrillary tangles, extracellular amyloid plaques and vascular amyloid deposits. The major constituent of these plaques is the neurotoxic amyloid-beta-APP 40-42 peptide (s), derived proteolytically from the transmembrane precursor protein APP by sequential secretase processing. The cytotoxic C-terminal fragments (CTFs) and the caspase-cleaved products such as C31 derived from APP, are also implicated in neuronal death. Defects in PSEN2 are the cause of cardiomyopathy dilated type 1V (CMD1V) [MIM:613697]. It is a disorder characterized by ventricular dilation and impaired systolic function, resulting in congestive heart failure and arrhythmia. Patients are at risk of premature death.

### Sequence similarities
Belongs to the peptidase A22A family.

### Domain
The PAL motif is required for normal active site conformation.

### Post-translational modifications
Heterogeneous proteolytic processing generates N-terminal and C-terminal fragments. Phosphorylated on serine residues.

### Cellular localization

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICC/IF</td>
<td>Use at an assay dependent concentration. PubMed: 21163940</td>
<td></td>
</tr>
<tr>
<td>IP</td>
<td>Use at an assay dependent concentration. PubMed: 21163940</td>
<td></td>
</tr>
<tr>
<td>ICC</td>
<td>Use at an assay dependent concentration.</td>
<td></td>
</tr>
<tr>
<td>IHC-P</td>
<td>1/20.</td>
<td></td>
</tr>
<tr>
<td>WB</td>
<td>Use a concentration of 12 µg/ml. Detects a band of approximately 20, 45 kDa.</td>
<td></td>
</tr>
<tr>
<td>ELISA</td>
<td>Use a concentration of 4.5 µg/ml.</td>
<td></td>
</tr>
</tbody>
</table>
Immunocytochemistry/Immunofluorescence analysis of HeLa cells labeling Presenilin 2/AD5 (green) with ab15549 at 1/20. F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue). Cells were fixed with formaldehyde and incubated with the primary antibody overnight at 4°C. A DyLight 488-conjugated secondary antibody was used. 60X magnification. Right - negative control.

Immunocytochemistry/Immunofluorescence analysis of A2058 cells labeling Presenilin 2/AD5 (green) with ab15549 at 1/20. F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue). Cells were fixed with formaldehyde and incubated with the primary antibody overnight at 4°C. A DyLight 488-conjugated secondary antibody was used. 60X magnification. Right - negative control.

IF staining Presenilin 2/AD5 in Mouse fibroblasts using ab15549

Immunohistochemistry was performed on normal biopsies of deparaffinized Human kidney tissue. To expose target proteins heat induced antigen retrieval was performed using 10mM sodium citrate (pH6.0) buffer microwaved for 8-15 minutes. Following antigen retrieval tissues were blocked in 3% BSA-PBS for 30 minutes at room temperature. Tissues were then probed at a dilution of 1:20 with a mouse monoclonal antibody recognizing Presenilin 2/AD5 ab15549 or without primary antibody (negative control) overnight at 4°C in a humidified chamber. Tissues were washed extensively with PBST and endogenous peroxidase activity was quenched with a peroxidase suppressor. Detection was performed using a biotin-conjugated secondary antibody and SA-HRP followed by colorimetric detection using DAB. Tissues were
counterstained with hematoxylin and prepped for mounting.

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

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors