**Product datasheet**

**Anti-Cyclophilin F antibody [E11AE12BD4] ab110324**

![KO VALIDATED](image)

**Overview**

<table>
<thead>
<tr>
<th><strong>Product name</strong></th>
<th>Anti-Cyclophilin F antibody [E11AE12BD4]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Mouse monoclonal [E11AE12BD4] to Cyclophilin F</td>
</tr>
<tr>
<td><strong>Host species</strong></td>
<td>Mouse</td>
</tr>
<tr>
<td><strong>Tested applications</strong></td>
<td>Suitable for: WB, Flow Cyt, In-Cell ELISA, ICC/IF, IHC-P, IP</td>
</tr>
<tr>
<td><strong>Species reactivity</strong></td>
<td>Reacts with: Mouse, Rat, Cow, Human</td>
</tr>
<tr>
<td><strong>Immunogen</strong></td>
<td>Recombinant full length protein corresponding to Rat Cyclophilin F aa 1-206. (also known as CypD)</td>
</tr>
<tr>
<td><strong>Positive control</strong></td>
<td>Isolated mitochondria from Human heart, Bovine heart, Rat heart, Mouse heart, HepG2 cells; Cultured Human embryonic lung-derived fibroblasts (strain MRC5); Human cerebellum tissue; HL60 cells.</td>
</tr>
<tr>
<td><strong>General notes</strong></td>
<td>This antibody clone is manufactured by Abcam. This monoclonal antibody to cyclophilin F has been knockout validated in Western blot. The expected band for cyclophilin F was observed in wild type cells and the band was not seen in knockout cells. If you require this antibody in a particular buffer formulation or a particular conjugate for your experiments, please contact <a href="mailto:orders@abcam.com">orders@abcam.com</a> or you can find further information <a href="#">here</a>.</td>
</tr>
</tbody>
</table>

**Properties**

<table>
<thead>
<tr>
<th><strong>Form</strong></th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Storage instructions</strong></td>
<td>Shipped at 4°C. Store at +4°C. Do Not Freeze.</td>
</tr>
<tr>
<td><strong>Storage buffer</strong></td>
<td>Preservative: 0.02% Sodium azide Constituent: HEPES buffered saline</td>
</tr>
<tr>
<td><strong>Purification notes</strong></td>
<td>ab110324 was produced in vitro using hybridomas grown in serum-free medium, and then purified by biochemical fractionation.</td>
</tr>
<tr>
<td><strong>Clonality</strong></td>
<td>Monoclonal</td>
</tr>
<tr>
<td><strong>Clone number</strong></td>
<td>E11AE12BD4</td>
</tr>
<tr>
<td><strong>Isotype</strong></td>
<td>IgG1</td>
</tr>
<tr>
<td><strong>Light chain type</strong></td>
<td>kappa</td>
</tr>
</tbody>
</table>
Function

PPIases accelerate the folding of proteins. It catalyzes the cis-trans isomerization of proline imidic peptide bonds in oligopeptides.

Sequence similarities

Belongs to the cyclophilin-type PPIase family.
Contains 1 PPIase cyclophilin-type domain.

Cellular localization

Mitochondrion matrix.

Form

This gene encodes a 178 aa mature protein that is found in the mitochondrion and may participate in the permeability transition pore. While technically this protein is Cyclophilin F, literature references commonly refer to this protein as 'cyclophilin D' or 'CypD'. A different cytoplasmic protein of 370 aa, represented by Entrez GeneID 5481, is identified as Cyclophilin D. This antibody does not react with this 370 aa cytoplasmic protein.

Applications

Our Abpromise guarantee covers the use of ab110324 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>WB</td>
<td></td>
<td>Use a concentration of 1 µg/ml. Predicted molecular weight: 22 kDa.</td>
</tr>
<tr>
<td>Flow Cyt</td>
<td></td>
<td>Use a concentration of 1 µg/ml. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.</td>
</tr>
<tr>
<td>In-Cell ELISA</td>
<td></td>
<td>Use a concentration of 4 µg/ml.</td>
</tr>
<tr>
<td>ICC/IF</td>
<td>★★★★★</td>
<td>Use a concentration of 5 µg/ml.</td>
</tr>
<tr>
<td>IHC-P</td>
<td></td>
<td>1/100. Perform heat mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol.</td>
</tr>
<tr>
<td>IP</td>
<td>★★★★★</td>
<td>1/1000.</td>
</tr>
</tbody>
</table>

Image

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Lane 1: Wild type HAP1 whole cell lysate (20 µg)
Lane 2: Cyclophilin F knockout HAP1 whole cell lysate (20 µg)
Lane 3: HeLa whole cell lysate (20 µg)
Lane 4: Hek293 whole cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab110324 observed at 24 kDa. Red - loading control, ab181602, observed at 37 kDa.

ab110324 detected the expected band for Cyclophilin F in wild type HAP1 cells and the band was not seen in Cyclophilin F knockout HAP1 cells. Wild-type and Cyclophilin F knockout samples were subjected to SDS-PAGE. Ab110324 and ab181602 (Rabbit anti GAPDH loading control) were incubated overnight at 4°C at 1 ug/ml and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.

Immunocytochemistry analysis using ab110324 at 1µg/ml staining Cyclophilin 40 in Cultured Human embryonic lung-derived fibroblasts (strain MRC5), (fixed, treated for heat-induced antigen retrieval, permeabilized) followed by an AlexaFluor® 488-conjugated-goat-anti-mouse IgG1 isotype specific secondary antibody (2 µg/ml).
**Western blot - Anti-Cyclophilin F antibody**

**[E11AE12BD4] (ab110324)**

This image is courtesy of an anonymous Abreview.

**All lanes**: Anti-Cyclophilin F antibody [E11AE12BD4] (ab110324) at 1/1000 dilution

**Lane 1**: WT mouse liver mitochondria lysate at 25 µg

**Lane 2**: CypD KO mouse liver mitochondria lysate at 25 µg

**Lane 3**: WT mouse liver mitochondria lysate at 35 µg

**Lane 4**: CypD KO mouse liver mitochondria lysate at 35 µg

**Lane 5**: WT mouse liver mitochondria lysate at 50 µg

**Lane 6**: CypD KO mouse liver mitochondria lysate at 50 µg

**Secondary**

**All lanes**: HRP-conjugated goat anti-mouse IgG polyclonal at 1/4000 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**: 13 kDa (possible non-specific binding)

**Exposure time**: 5 seconds

Blocked with 5% milk for 1 hour at 25°C.

Incubated with the primary antibody diluted in PBS-T + 5% milk for 16 hours at 4°C.
Immunohistological analysis using ab110324 at 1µg/ml staining Cyclophilin F in Human cerebellum tissue (Formalin-fixed, Paraffin-embedded).

Note: immunoactivity is most intense in neuronal cell bodies, most notably in the large Purkinje cells.

Immunocytochemistry/ Immunofluorescence analysis of HEK293 cells labeling Cyclophilin F with ab110324 at 1/200 dilution. Cells were fixed with paraformaldehyde and permeabilized with 1% triton x-100. 10% goat serum was used to blocke the cells for 1 hour at room temp followed by incubation with Anti-Cyclophilin F antibody [E11AE12BD4] (ab110324) in 10% goat serum-PBST for 16 hours at 4°C. A goat anti-mouse IgG secondary antibody was used at 1/300 dilution.

All lanes: Anti-Cyclophilin F antibody [E11AE12BD4] (ab110324) at 1 µg/ml

Lane 1: Isolated mitochondria from Human heart at 5 µg
Lane 2: Isolated mitochondria from Bovine heart at 1 µg
Lane 3: Isolated mitochondria from Rat heart at 10 µg
Lane 4: Isolated mitochondria from Mouse heart at 10 µg
Lane 5: Isolated mitochondria from HepG2 cells at 20 µg

Predicted band size: 22 kDa
Flow cytometric analysis using ab110324 at 1µg/ml staining Cyclophilin F in HL60 cells (blue). Isotype control antibody (red).

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