Overview

Product name: Anti-Prohibitin antibody [EP2804Y] - Mitochondrial Marker
Description: Rabbit monoclonal [EP2804Y] to Prohibitin - Mitochondrial Marker
Host species: Rabbit
Tested applications: Suitable for: IHC-Fr, WB, IP, IHC-P, Flow Cyt, ICC/IF
Species reactivity: Reacts with: Mouse, Rat, Human
Immunogen: Synthetic peptide within Human Prohibitin aa 150-250. The exact sequence is proprietary.
Positive control: WB: MCF-7, PC-12, A431 and Ramos cell lysate; IHC-P: human hepatocellular carcinoma tissue, mouse kidney tissue, mouse endometrium tissue, mouse liver tissue, rat liver tissue and rat stomach tissue; ICC/IF: Hela and Neuro-2a cells. IP: MCF7

General notes

Our RabMab® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMab® patents.
This product is a recombinant rabbit monoclonal antibody.

Properties

Form: Liquid
Storage instructions: Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer: pH: 7.20
Preservative: 0.01% Sodium azide
Constituents: 9% PBS, 40% Glycerol, 0.05% BSA, 50% Tissue culture supernatant
Purity: Tissue culture supernatant
Clonality: Monoclonal
Clone number: EP2804Y
Isotype: IgG
**Function**
Prohibitin inhibits DNA synthesis. It has a role in regulating proliferation. As yet it is unclear if the protein or the mRNA exhibits this effect. May play a role in regulating mitochondrial respiration activity and in aging.

**Tissue specificity**
Widely expressed in different tissues.

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

**Developmental stage**
Levels of expression in fibroblasts decrease heterogeneously during cellular aging.

**Cellular localization**
Mitochondrion inner membrane.

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**Applications**

Our **Abpromise guarantee** covers the use of **ab75771** 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>IHC-Fr</td>
<td></td>
<td>Use at an assay dependent concentration. PubMed: 22125622</td>
</tr>
<tr>
<td>WB</td>
<td>1/500 - 1/1000. Predicted molecular weight: 30 kDa.</td>
<td></td>
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<tr>
<td>IP</td>
<td>1/20.</td>
<td></td>
</tr>
<tr>
<td>IHC-P</td>
<td>1/100 - 1/250. Perform heat mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol.</td>
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<tr>
<td>Flow Cyt</td>
<td>1/30.</td>
<td><em>ab172730</em> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.</td>
</tr>
<tr>
<td>ICC/IF</td>
<td>1/100 - 1/250.</td>
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</table>
**Western blot - Anti-Prohibitin antibody [EP2804Y] - Mitochondrial Marker (ab75771)**

All lanes: Anti-Prohibitin antibody [EP2804Y] - Mitochondrial Marker (ab75771) at 1/1000 dilution

Lane 1: MCF-7 cell lysates
Lane 2: PC-12 cell lysates
Lane 3: A431 cell lysates
Lane 4: Ramos cell lysates

Lysates/proteins at 10 µg per lane.

**Secondary**

All lanes: HRP labelled goat anti-rabbit at 1/2000 dilution

**Predicted band size:** 30 kDa

**Observed band size:** 30 kDa

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse kidney tissue labelling Prohibitin with ab75771 at 1/250.
Immunocytochemistry/Immunofluorescence analysis of HeLa cells labelling Prohibitin with ab75771 at 1/250. An Alexa Fluor® 488-conjugated anti-rabbit IgG was used as the secondary antibody.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human hepatocellular carcinoma tissue labelling Prohibitin with ab75771 at 1/100. A HRP/AP polymerized secondary antibody was used.

ab75771 (purified) at 1/500 dilution (4.3 µg/ml) immunoprecipitating Prohibitin in MCF7 whole cell lysate.

Lane 1 (input): MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysate 10µg
Lane 2 (+): ab75771 & MCF7 whole cell lysate
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab75771 in MCF7 whole cell lysate

For western blotting, VeriBlot for IP Detection Reagent (HRP) (ab131366) was used for detection at 1/1000 dilution. Blocking and diluting buffer: 5% NFDM/TBST.
Immunocytochemistry/Immunofluorescence analysis of Neuro-2a cells labelling Prohibitin with ab75711 at 1/250. An Alexa Fluor® 488-conjugated anti-rabbit IgG was used as the secondary antibody.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse endometrium tissue labelling Prohibitin with ab75771 at 1/250.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse liver tissue labelling Prohibitin with ab75771 at 1/250.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat liver tissue labelling Prohibitin with ab75771 at 1/250.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat stomach tissue labelling Prohibitin with ab75771 at 1/250.

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