abcam

Product datasheet

Anti-Cyclophilin B antibody [EPR12703(B)] - Loading Control ab178397

KO VALIDATED Recombinant RabMAb

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Overview

Product name	Anti-Cyclophilin B antibody [EPR12703(B)] - Loading Control
Description	Rabbit monoclonal [EPR12703(B)] to Cyclophilin B - Loading Control
Host species	Rabbit
Tested applications	**Suitable for:** WB **Unsuitable for:** Flow Cyt,ICC/IF or IHC-P
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HepG2, HeLa, NIH/3T3, PC-12, HAP1, Jurkat, U87-MG and A431 cell lysates, mouse and rat heart tissue lysates.
General notes	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 long term. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR12703(B)

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab178397 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ **(4)**	1/1000 - 1/10000. Predicted molecular weight: 24 kDa.

Application notes Is unsuitable for Flow Cyt,ICC/IF or IHC-P.

Target

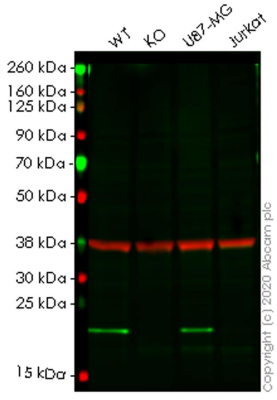
Function PPIases accelerate the folding of proteins. It catalyzes the cis-trans isomerization of proline imidic peptide bonds in oligopeptides.

Involvement in disease Defects in PPIB are the cause of osteogenesis imperfecta type 9 (OI9) [MIM:259440]. OI9 is a connective tissue disorder characterized by bone fragility, low bone mass and bowing of limbs due to multiple fractures. Short limb dwarfism and blue sclerae are observed in some but not all patients.

Sequence similarities Belongs to the cyclophilin-type PPIase family. PPIase B subfamily.
Contains 1 PPIase cyclophilin-type domain.

Cellular localization Endoplasmic reticulum lumen. Melanosome. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.

Images



Western blot - Anti-Cyclophilin B antibody [EPR12703(B)] - Loading Control (ab178397)

All lanes : Anti-Cyclophilin B antibody [EPR12703(B)] - Loading Control (ab178397) at 1/1000 dilution

Lane 1 : Wild-type HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate
Lane 2 : PPIB knockout HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate
Lane 3 : U-87 MG (Human glioblastoma-astrocytoma epithelial cell line) whole cell lysate
Lane 4 : Jurkat (Human T cell leukemia cell line from peripheral blood) whole cell lysate

Lysates/proteins at 20 µg per lane.

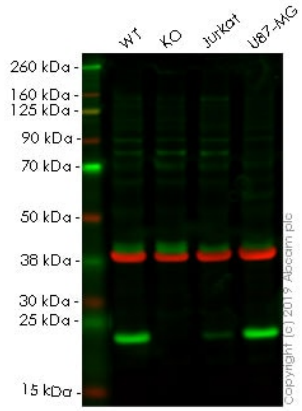
Secondary
All lanes : Goat anti-Rabbit IgG H&L (IRDye® 800CW)

preadsorbed (**ab216773**) at 1/10000 dilution

Predicted band size: 24 kDa
Observed band size: 24 kDa

Lanes 1-4: Merged signal (red and green). Green - ab178397 observed at 24 kDa. Red - loading control **ab8245** observed at 36 kDa.

ab178397 Anti-Cyclophilin B antibody [EPR12703(B)] was shown to specifically react with Cyclophilin B in wild-type HeLa cells. Loss of signal was observed when knockout cell line **ab261746** (knockout cell lysate **ab257037**) was used. Wild-type and Cyclophilin B knockout samples were subjected to SDS-PAGE. ab178397 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-Cyclophilin B antibody [EPR12703(B)] - Loading Control (ab178397)

All lanes : Anti-Cyclophilin B antibody [EPR12703(B)] - Loading Control (ab178397) at 1 µg/ml

Lane 1 : Wild-type HAP1 whole cell lysate
Lane 2 : PPIB knockout HAP1 whole cell lysate
Lane 3 : Jurkat whole cell lysate
Lane 4 : U87-MG whole cell lysate

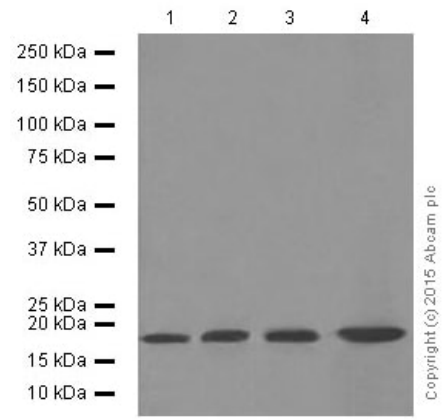
Lysates/proteins at 20 µg per lane.

Predicted band size: 24 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab178397 observed at 24 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

ab178397 was shown to recognize PPIB in wild-type HAP1 cells as signal was lost at the expected MW in PPIB knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and PPIB knockout samples were

subjected to SDS-PAGE. The membrane was blocked with 3% Milk. Ab178397 and **ab8245** (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1 µg/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.



Western blot - Anti-Cyclophilin B antibody [EPR12703(B)] - Loading Control (ab178397)

All lanes : Anti-Cyclophilin B antibody [EPR12703(B)] - Loading Control (ab178397) at 1/10000 dilution (purified)

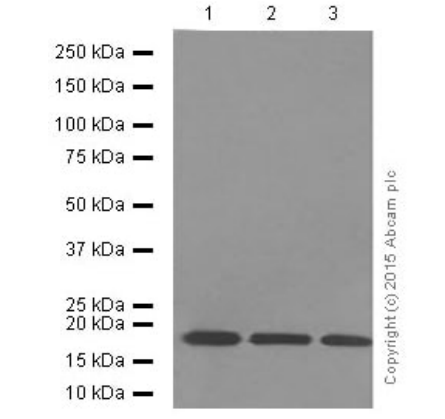
Lane 1 : Mouse heart tissue lysate
Lane 2 : NIH/3T3 cell lysate
Lane 3 : Rat heart tissue lysate
Lane 4 : PC-12 cell lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Peroxidase-conjugated goat anti-rabbit IgG, (H+L) at 1/1000 dilution

Predicted band size: 24 kDa
Observed band size: 18 kDa

Blocking and dilution buffer: 5% NFDM/TBST.



Western blot - Anti-Cyclophilin B antibody [EPR12703(B)] - Loading Control (ab178397)

All lanes : Anti-Cyclophilin B antibody [EPR12703(B)] - Loading Control (ab178397) at 1/10000 dilution (purified)

Lane 1 : HepG2 cell lysate
Lane 2 : HeLa cell lysate
Lane 3 : A431 cell lysate

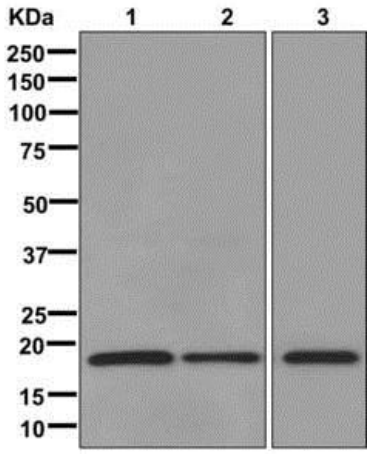
Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Peroxidase-conjugated goat anti-rabbit IgG, (H+L) at 1/1000 dilution

Predicted band size: 24 kDa

Observed band size: 18 kDa

Blocking and dilution buffer: 5% NFDM/TBST.



Western blot - Anti-Cyclophilin B antibody [EPR12703(B)] - Loading Control (ab178397)

All lanes : Anti-Cyclophilin B antibody [EPR12703(B)] - Loading Control (ab178397) at 1/1000 dilution

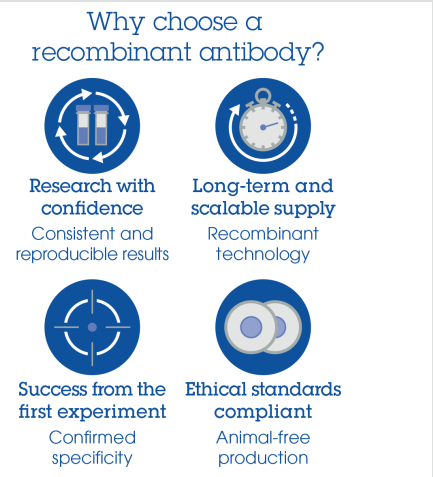
Lane 1 : HepG2 (Human liver hepatocellular carcinoma cell line) cell lysate
Lane 2 : HeLa (Human epithelial cell line from cervix adenocarcinoma) cell lysate
Lane 3 : A431 (Human epidermoid carcinoma cell line) cell lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : HRP-conjugated goat anti-rabbit IgG at 1/2000 dilution

Developed using the ECL technique.

Predicted band size: 24 kDa



Anti-Cyclophilin B antibody [EPR12703(B)] - Loading Control (ab178397)

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