abcam

ab231155

Anti-Cyclophilin F antibody [EPR11311-121]

Recombinant | RabMAb | KO Validated

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR11311-121
Purification technique	Affinity purification Protein A
Concentration	0.542 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Rat

Dilution info	1/1000
Notes	-

Species	Human
Dilution info	1/1000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/600
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Tested

Species	Mouse
Dilution info	-
Notes	Use at 1:4000 (human), 1:500 (mouse) dilution. Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Human
Dilution info	-
Notes	Use at 1:4000 (human), 1:500 (mouse) dilution. Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information PPIF

Function	PPIase that catalyzes the cis-trans isomerization of proline imidic peptide bonds in oligopeptides and may therefore assist protein folding (PubMed:20676357). Involved in regulation of the mitochondrial permeability transition pore (mPTP) (PubMed:26387735). It is proposed that its association with the mPTP is masking a binding site for inhibiting inorganic phosphate (Pi) and promotes the open probability of the mPTP leading to apoptosis or necrosis; the requirement of the PPIase activity for this function is debated (PubMed:26387735). In cooperation with mitochondrial p53/TP53 is involved in activating oxidative stress-induced necrosis (PubMed:22726440). Involved in modulation of mitochondrial membrane F(1)F(0) ATP synthase activity and regulation of mitochondrial matrix adenine nucleotide levels (By similarity). Has anti-apoptotic activity independently of mPTP and in cooperation with BCL2 inhibits cytochrome c-dependent apoptosis (PubMed:19228691).

Storage

Shipped at conditions	Conditional Ambient

Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

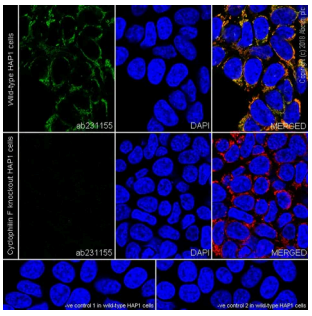
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

11 product images



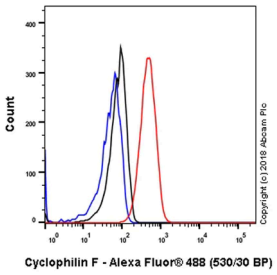
Immunocytochemistry/ Immunofluorescence - Anti-Cyclophilin F antibody [EPR11311-121] (ab231155)

Cyclophilin F Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Cyclophilin F antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized Wildtype and Cyclophilin F knockout HAP1 (human chronic myelogenous leukemia near-haploid cell line) cells labeling Cyclophilin F with ab231155 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 (green). Confocal image showing Cyclophilin F staining and mitochondrial co-localization in wildtype HAP1 cells, with loss of the signal in the Cyclophin F-knockout HAP1 cells. The nuclear counter stain is DAPI (blue). Mitochondria are stained with with ab33985 Anti-COX IV (mouse mAb) - Mitochondrial Marker followed by ab150120 AlexaFluor®594 Goat anti-Mouse secondary both at 1/1000 dilution (red).

-ve control 1: ab231155 (Rabbit anti-Cyclophilin F) at 1/1000 dilution followed by ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution.

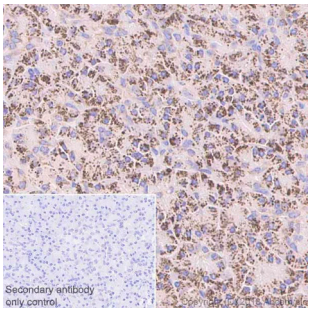
-ve control 2: ab33985 Anti-COX IV (mouse mAb) - Mitochondrial Marker at 1/1000 dilution followed by ab150077 (AlexaFluor®488 Goat anti-Rabbit secondary) at 1/1000 dilution.



Flow Cytometry (Intracellular) - Anti-Cyclophilin F antibody [EPR11311-121] (ab231155)

Cyclophilin F Flow Cytometry (Intracellular) staining using rabbit Anti-Cyclophilin F antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized HeLa (human cervix adenocarcinoma epithelial cell) cell line labeling Cyclophilin F with ab231155 at 1/600 (red) compared with a Rabbit monoclonal IgG (ab172730) (black) and an unlabeled control (cells incubated with secondary antibody only) (blue). Goat anti rabbit IgG (Alexa Fluorï¿½ 488, ab150077), at 1/2000 dilution was used as the secondary antibody.



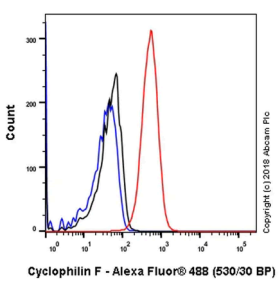
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cyclophilin F antibody [EPR11311-121] (ab231155)

Cyclophilin F Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cyclophilin F antibody

Immunohistochemical analysis of paraffin-embedded human pancreas tissue labeling Cyclophilin F with ab231155 at 1/4000 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Granular cytoplasmic staining in human pancreas (PMID: 23991223, PMID: 15344907, PMID: 26258444) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

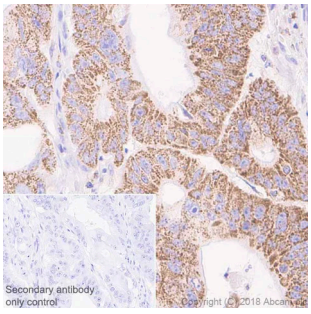
Perform heat mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0).



Flow Cytometry (Intracellular) - Anti-Cyclophilin F antibody [EPR11311-121] (ab231155)

Cyclophilin F Flow Cytometry (Intracellular) staining using rabbit Anti-Cyclophilin F antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized Jurkat (human T cell leukemia T lymphocyte) cell line labeling Cyclophilin F with ab231155 at 1/600 (red) compared with a Rabbit monoclonal IgG (ab172730) (black) and an unlabeled control (cellsincubated with secondary antibody only) (blue). Goat anti rabbit IgG (Alexa Fluor¨ 488, ab150077), at 1/2000 dilution was used as the secondary antibody.

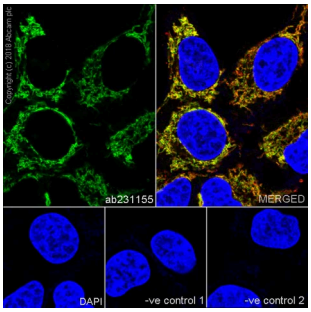


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cyclophilin F antibody [EPR11311-121] (ab231155)

Cyclophilin F Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cyclophilin F antibody

Immunohistochemical analysis of paraffin-embedded human colonic carcinoma tissue labeling Cyclophilin F with ab231155 at 1/4000 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Granular cytoplasmic staining in tumor cells of human colon carcinoma (PMID: 23991223, PMID: 15344907, PMID: 26258444) is observed. Counter stained with Hematoxylin. Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Perform heat mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0).



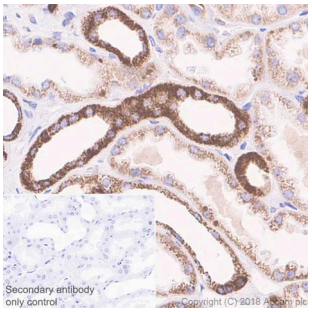
Immunocytochemistry/ Immunofluorescence - Anti-Cyclophilin F antibody [EPR11311-121] (ab231155)

Cyclophilin F Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Cyclophilin F antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human cervix adenocarcinoma epithelial cell) cells labeling Cyclophilin F with ab231155 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 (green). Confocal image showing Cyclophilin F staining and mitochondrial localization in the HeLa cell line. The nuclear counter stain is DAPI (blue).
Mitochondria are stained with ab33985 Anti-COX IV (mouse mAb) - Mitochondrial Marker followed by ab150120 AlexaFluor®594 Goat anti-Mouse secondary both at 1/1000 dilution (red).

-ve control 1: ab231155 (Rabbit anti-Cyclophilin F) at 1/1000 dilution followed by ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution.

-ve control 2: ab33985 Anti-COX IV (mouse mAb) - Mitochondrial Marker at 1/1000 dilution followed by ab150077 (AlexaFluor®488 Goat anti-Rabbit secondary) at 1/1000 dilution.

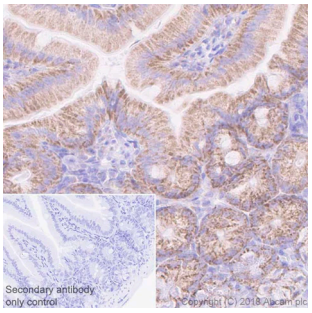


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cyclophilin F antibody [EPR11311-121] (ab231155)

Cyclophilin F Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cyclophilin F antibody

Immunohistochemical analysis of paraffin-embedded human kidney tissue labeling Cyclophilin F with ab231155 at 1/4000 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Granular cytoplasmic staining in human kidney (PMID: 23991223, PMID: 15344907, PMID: 26258444) is observed. Counter stained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Perform heat mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0).

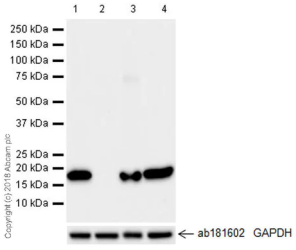


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cyclophilin F antibody [EPR11311-121] (ab231155)

Cyclophilin F Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cyclophilin F antibody

Immunohistochemical analysis of paraffin-embedded mouse colon tissue labeling Cyclophilin F with ab231155 at 1/500 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Granular cytoplasmic staining in mouse colon (PMID: 23991223, PMID: 15344907, PMID: 26258444) is observed. Counter stained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Perform heat mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0).



Western blot - Anti-Cyclophilin F antibody [EPR11311-121] (ab231155)

Cyclophilin F Western blot staining using rabbit Anti-Cyclophilin F antibody

ab231155 was shown to specifically react with Cyclophilin F in wild-type HAP1 cells as signal was lost in Cyclophilin F knockout cells. Wild-type and Cyclophilin F knockout samples were subjected to SDS-PAGE. ab231155 and ab181602 (Human anti-GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/200000 dilution respectively. Blots were developed with Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) secondary antibody at 1/100,000 dilution for 1 hour at room temperature before imaging. The blot was developed on a BIO-RAD® ChemiDoc™ MP instrumentusing the ECL technique.
All lanes:
Western blot - Anti-Cyclophilin F antibody [EPR11311-121] (ab231155) at 1/1000 dilution

Lane 1:
Wild type HAP1 whole cell lysate at 20 µg

Lane 2:
Cyclophilin F knockout HAP1 whole cell lysate at 20 µg

Lane 3:
HEK-293 (human embryonic kidney epithelial cell), whole cell lysate at 20 µg

Lane 4:

HeLa (human cervix adenocarcinoma epithelial cell), whole cell lysate at 20 µg

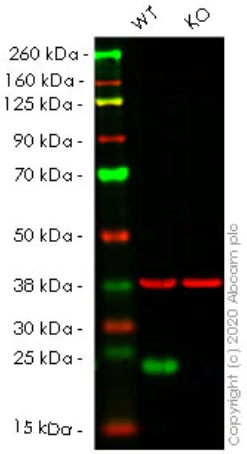
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 22 kDa

Observed band size: 18 kDa

Exposure time: 59s



Western blot - Anti-Cyclophilin F antibody [EPR11311-121] (ab231155)

Cyclophilin F Western blot staining using rabbit Anti-Cyclophilin F antibody

Lanes 1- 2: Merged signal (red and green). Green - ab231155 observed at 23 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control (ab8245) observed at 37 kDa.
ab231155 was shown to react with Cyclophilin F in wild-type HEK-293T cells in western blot. Loss of signal was observed when knockout cell line ab266077 (knockout cell lysate ab257039) was used. Wild-type HEK-293T and PPIF knockout HEK-293T cell lysates were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. ab231155 and Anti-GAPDH antibody [6C5] - Loading Control (ab8245) overnight at 4°C at a 1 in 1000 dilution and a 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.

All lanes:
Western blot - Anti-Cyclophilin F antibody [EPR11311-121] (ab231155) at 1/1000 dilution

Lane 1:
Wild-type HEK-293T cell lysate at 20 µg

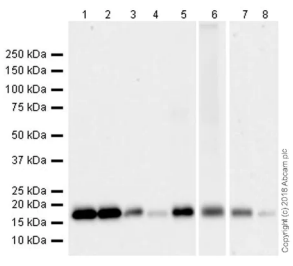
Lane 2:
PPIF knockout HEK-293T cell lysate at 20 µg

Lane 2:
Western blot - Human PPIF (Cyclophilin F) knockout HEK-293T cell line (ab266077)

Performed under reducing conditions.

Predicted band size: 22 kDa

Observed band size: 23 kDa



Western blot - Anti-Cyclophilin F antibody [EPR11311-121] (ab231155)

Cyclophilin F Western blot staining using rabbit Anti-Cyclophilin F antibody

Blocking/Dilution buffer and concentration: 5% NFDM/TBST.
Exposure times:

Lanes 1-5: 59 seconds

Lane 6: 37 seconds

Lane 7-8:3 minutes
All lanes:
Anti-Thrombospondin antibody (ab231115) at 1/1000 dilution

Lane 1:
Jurkat (human T cell leukemia T lymphocyte), whole cell lysate at 20 µg

Lane 2:
MCF7 (human breast adenocarcinoma epithelial cell), whole cell lysate at 20 µg

Lane 3:
HEK-293T (human embryonic kidney epithelial cell), whole cell lysate at 20 µg

Lane 4:
Human liver lysate at 20 µg

Lane 5:
Human heart lysate at 20 µg

Lane 6:
Mouse heart lysate at 20 µg

Lane 7:
Rat liver lysate at 20 µg

Lane 8:
Rat heart lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 22 kDa

Observed band size: 18 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.