abcam

ab110324

Anti-Cyclophilin F antibody [E11AE12BD4]

KO Validated

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.4 - 7.5 Preservative: 0.02% Sodium azide Constituents: HEPES buffered saline
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	E11AE12BD4
Light chain type	kappa
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	ab110324 was produced in vitro using hybridomas grown in serum-free medium, and then purified by biochemical fractionation.

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/100
Notes	

	Perform heat-mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol.

Expected

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

Flow Cyt

Tested

Species	Human
Dilution info	1 µg/mL
Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Expected

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

WB

Tested

Species	Human
Dilution info	1 µg/mL
Notes	-

Species	Mouse
Dilution info	1 µg/mL
Notes	-

Species	Rat
Dilution info	1 µg/mL

Notes	-

Species	Cow
Dilution info	1 µg/mL
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	5 µg/mL
Notes	-

Expected

Species	Mouse, Rat, Cow
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	Blue Ice

Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

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.
Want a custom formulation?
This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com

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

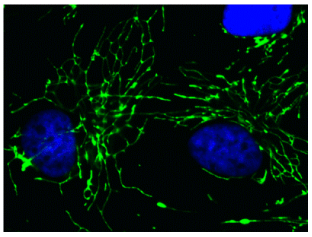
We do not recommend this combination. It is not covered by our product promise.

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.

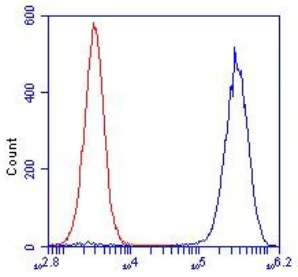
7 product images



Immunocytochemistry/ Immunofluorescence - Anti-Cyclophilin F antibody [E11AE12BD4] (ab110324)

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

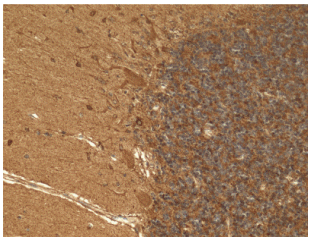
Immunocytochemistry analysis using ab110324 at 1µg/ml staining Cyclophilin 40 in Cultured Human embryonic lung-derived fibroblasts (strain MRC5), (fixed, treated for heat-induced antigen retrieval, permeabilized) followed by an AlexaFluor® 488-conjugated-goat-anti-mouse IgG1 isotype specific secondary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



Flow Cytometry - Anti-Cyclophilin F antibody [E11AE12BD4] (ab110324)

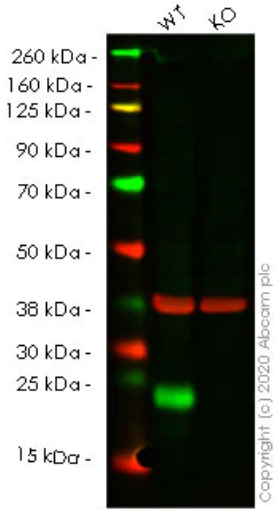
Cyclophilin F Flow Cytometry staining using mouse Anti-Cyclophilin F antibody

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



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cyclophilin F antibody [E11AE12BD4] (ab110324)

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.



Western blot - Anti-Cyclophilin F antibody [E11AE12BD4] (ab110324)

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

Lanes 1- 2: Merged signal (red and green). Green - ab110324 observed at 23 kDa. Red - Anti-GAPDH antibody[EPR16891] - Loading Control (ab181602) observed at 37 kDa.
ab110324 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. ab110324 and Anti-GAPDH antibody[EPR16891] - Loading Control (ab181602) overnight at 4°C at a 1 in 10000 dilution and a 1 in 20000 dilution respectively. Blots were developed with Goat anti-Mouse IgG H&L (IRDye®800CW) preadsorbed (ab216772) and Goat Anti-Rabbit IgG H&L (IRDye®680RD) preadsorbed (ab216777) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-Cyclophilin F antibody [E11AE12BD4] (ab110324) at 1/10000 dilution

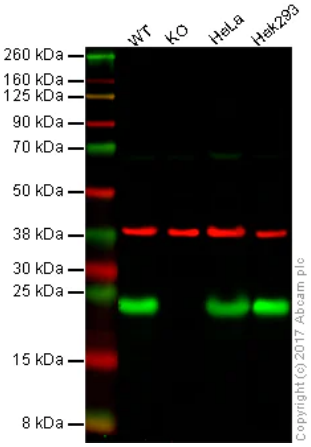
Lane 1:
Wild-type HEK-293T cell lysate at 20 µg

Lane 2:
Western blot - Human PPIF (Cyclophilin F) knockout HEK-293T cell lysate (ab257039) at 20 µg

Performed under reducing conditions.

Predicted band size: 22 kDa

Observed band size: 37 kDa, 23 kDa



Western blot - Anti-Cyclophilin F antibody [E11AE12BD4] (ab110324)

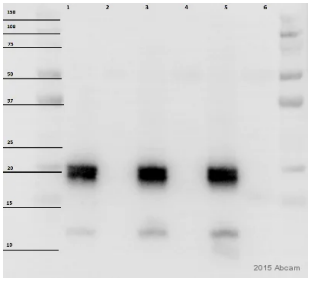
Cyclophilin F Western blot staining using mouse Anti-Cyclophilin F antibody

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.

All lanes:
Western blot - Anti-Cyclophilin F antibody [E11AE12BD4] (ab110324)

Predicted band size: 22 kDa



This image is courtesy of an anonymous customer review

Western blot - Anti-Cyclophilin F antibody [E11AE12BD4] (ab110324)

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.

All lanes:
Western blot - 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

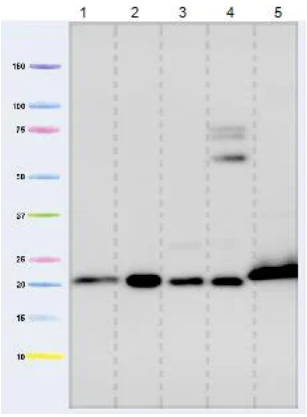
Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 22 kDa

Observed band size: 13 kDa, 20 kDa

Exposure time: 5s



Western blot - Anti-Cyclophilin F antibody [E11AE12BD4] (ab110324)

All lanes:
Western blot - 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

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