abcam

Product datasheet

Anti-PDCD4 antibody [EPR3432] ab79405

KO VALIDATED Recombinant RabMAb

10 References 6 Images

Overview

Product name	Anti-PDCD4 antibody [EPR3432]
Description	Rabbit monoclonal [EPR3432] to PDCD4
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P, ICC/IF **Unsuitable for:** IP
Species reactivity	**Reacts with:** Mouse, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HeLa, HAP1, and Jurkat whole cell lysate. IHC-P: Human breast carcinoma tissue. ICC/IF: HeLa cells
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**. Rat: We have preliminary internal testing data to indicate this antibody may not react with this species. Please contact us for more information.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant
Purity	Protein A purified

Clonality	Monoclonal
Clone number	EPR3432
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab79405 in the following tested applications.

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

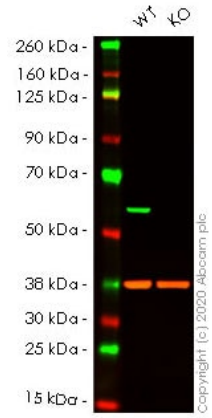
Application	Abreviews	Notes
WB		1/5000 - 1/10000. Detects a band of approximately 52 kDa (predicted molecular weight: 52 kDa).
IHC-P		1/1000 - 1/2000. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
ICC/IF		1/500.

Application notes Is unsuitable for IP.

Target

Function	Inhibits translation initiation and cap-dependent translation. May excert its function by hindering the interaction between EIF4A1 and EIF4G. Inhibits the helicase activity of EIF4A. Modulates the activation of JUN kinase. Down-regulates the expression of MAP4K1, thus inhibiting events important in driving invasion, namely, MAPK85 activation and consequent JUN-dependent transcription. May play a role in apoptosis. Tumor suppressor. Inhibits tumor promoter-induced neoplastic transformation. Binds RNA.
Tissue specificity	Up-regulated in proliferative cells. Highly expressed in epithelial cells of the mammary gland. Reduced expression in lung cancer and colon carcinoma.
Sequence similarities	Belongs to the PDCD4 family. Contains 2 MI domains.
Domain	Binds EIF4A1 via both MI domains.
Post-translational modifications	Polyubiquitinated, leading to its proteasomal degradation. Rapidly degraded in response to mitogens. Phosphorylation of the phosphodegron promotes interaction with BTRC and proteasomal degradation.
Cellular localization	Nucleus. Cytoplasm. Shuttles between the nucleus and cytoplasm. Predominantly nuclear under normal growth conditions, and when phosphorylated at Ser-457. Exported from the nucleus in the absence of serum.

Images



Western blot - Anti-PDCD4 antibody [EPR3432] (ab79405)

All lanes : Anti-PDCD4 antibody [EPR3432] (ab79405) at 1/5000 dilution

Lane 1 : Wild-type HeLa cell lysate
Lane 2 : PDCD4 knockout HeLa cell lysate

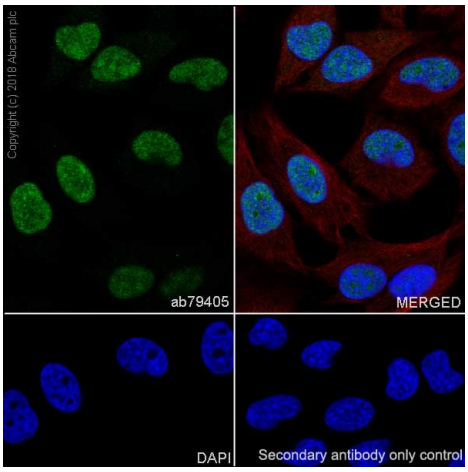
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 52 kDa
Observed band size: 51 kDa

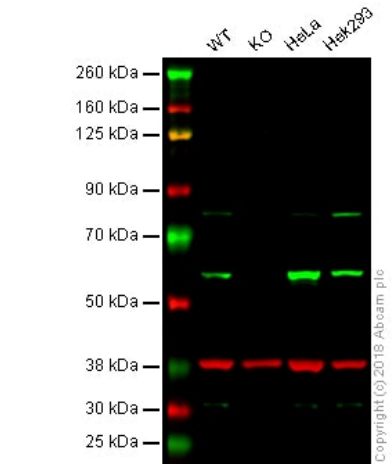
Lanes 1- 2: Merged signal (red and green). Green - ab79405 observed at 51 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) observed at 37 kDa.

ab79405 was shown to react with PDCD4 in wild-type HeLa cells in western blot. Loss of signal was observed when knockout cell line **ab261833** (knockout cell lysate **ab257278**) was used. Wild-type HeLa and PDCD4 knockout HeLa 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. ab79405 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) overnight at 4°C at a 1 in 5000 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.



Immunocytochemistry/ Immunofluorescence - Anti-PDCD4 antibody [EPR3432] (ab79405)

Immunocytochemistry/ Immunofluorescence analysis of HeLa (human cervix adenocarcinoma epithelial cell) cells labeling PDCD4 with purified ab79405 at 1/500 dilution (4 µg/mL). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with **ab195889** Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/mL). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1/1000 (2 µg/mL) dilution. DAPI (blue) was used as nuclear counterstain. **ab195889** Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/mL) was used as the secondary antibody only control.



Western blot - Anti-PDCD4 antibody [EPR3432] (ab79405)

All lanes : Anti-PDCD4 antibody [EPR3432] (ab79405) at 1/5000 dilution

Lane 1 : Wild-type HAP1 whole cell lysate
Lane 2 : PDCD4 knockout HAP1 whole cell lysate
Lane 3 : HeLa whole cell lysate
Lane 4 : HEK293 whole cell lysate

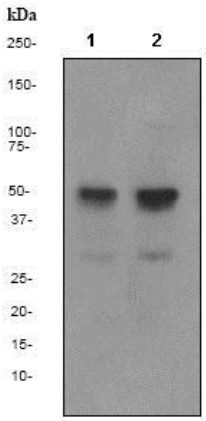
Lysates/proteins at 20 µg per lane.

Predicted band size: 52 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab79405 observed at 52 kDa. Red - loading control, **ab9484**, observed at 37 kDa.

ab79405 was shown to recognize PDCD4 in wild-type HAP1 cells as signal was lost at the expected MW in PDCD4 knockout HAP1 cells. Additional cross-reactive bands were observed in the wild-

type and knockout cells. Wild-type and PDCD4 knockout samples were subjected to SDS-PAGE. ab79405 and **ab9484** (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/5000 dilution 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 1/10000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-PDCD4 antibody [EPR3432] (ab79405)

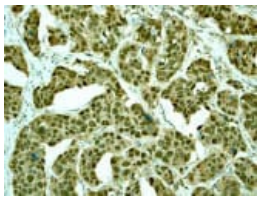
All lanes : Anti-PDCD4 antibody [EPR3432] (ab79405) at 1/10000 dilution

Lane 1 : Jurkat cell lysate
Lane 2 : HeLa cell lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat anti-rabbit HRP at 1/2000 dilution

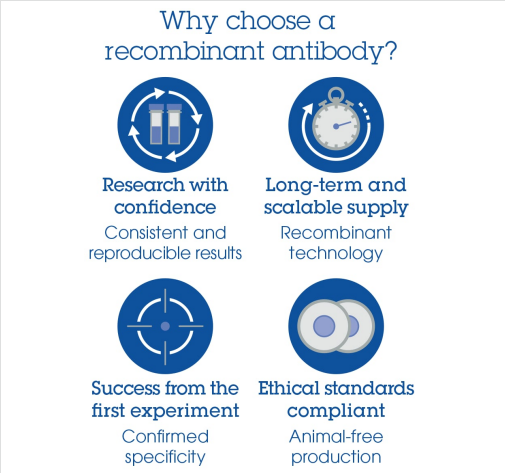
Predicted band size: 52 kDa
Observed band size: 52 kDa
Additional bands at: 30 kDa. We are unsure as to the identity of these extra bands.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PDCD4 antibody [EPR3432] (ab79405)

ab79405 at 1/1000 dilution staining PDCD4 in human breast carcinoma by Immunohistochemistry using paraffin-embedded tissue.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Anti-PDCD4 antibody [EPR3432] (ab79405)

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