Anti-CDC42 Antibody [JJ086-04]

ET1701-7

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell, FC, IF-Tissue
Molecular Wt:	Predicted band size: 21 kDa
Clone number:	JJ086-04

Description: The superfamily of GTP-binding proteins, for which the Ras proteins are prototypes, has been implicated in regulation of diverse biological activities involving various aspects of cell growth and division. One mammalian member of the family, Cdc42, has an amino acid sequence that is similar to those of various members of the Ras superfamily proteins, including N-, K- and H-Ras, Rho proteins and the Rac proteins. On the basis of in vitro phosphorylation studies, it has been suggested that human Cdc42 may function in the signaling pathway of the EGF receptor or related growth factor receptor protein kinases. The Dbl oncogene has been shown to specifically catalyze dissociation of GDP from human Cdc42.

Immunogen: Recombinant protein within Human CDC42 aa 30-191 / 191.

Positive control: HepG2 cell lysate, MCF7 cell lysate, NIH/3T3 cell lysate, C2C12 cell lysate, C6 cell lysate, Mouse brain tissue lysate, Rat brain tissue lysate, HepG2, NIH/3T3, C6.

Subcellular location: Cell membrane, Cell projection, Cytoplasm, Cytoskeleton, Membrane.

Database links: SwissProt: P60953 Human | P60766 Mouse | Q8CFN2 Rat

Recommended Dilutions:

WB	1:1,000
IF-Cell	1:500
FC	1:1,000
IF-Tissue	1:500

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

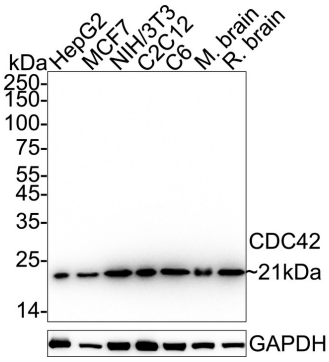

Fig1: Western blot analysis of CDC42 on different lysates with Rabbit anti-CDC42 antibody (ET1701-7) at 1/1,000 dilution.

Lane 1: HepG2 cell lysate
Lane 2: MCF7 cell lysate
Lane 3: NIH/3T3 cell lysate
Lane 4: C2C12 cell lysate
Lane 5: C6 cell lysate
Lane 6: Mouse brain tissue lysate
Lane 7: Rat brain tissue lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 21 kDa
Observed band size: 21 kDa

Exposure time: 8 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1701-7) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

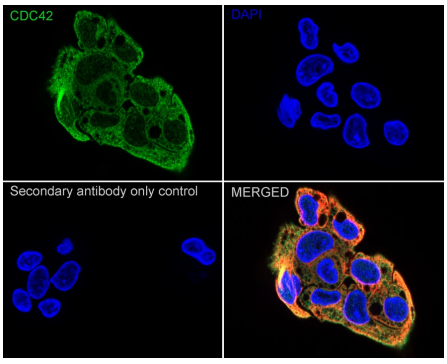

Fig2: Immunocytochemistry analysis of HepG2 cells labeling CDC42 with Rabbit anti-CDC42 antibody (ET1701-7) at 1/500 dilution.

Cells were fixed in 4% paraformaldehyde for 15 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-CDC42 antibody (ET1701-7) at 1/500 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (HA601187, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

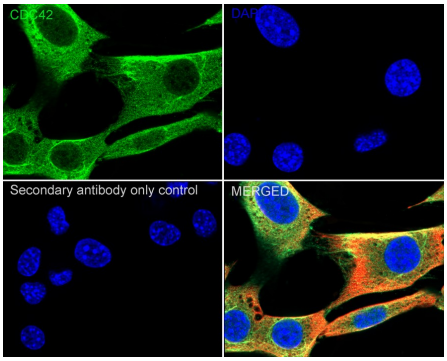

Fig3: Immunocytochemistry analysis of NIH/3T3 cells labeling CDC42 with Rabbit anti-CDC42 antibody (ET1701-7) at 1/500 dilution.

Cells were fixed in 4% paraformaldehyde for 15 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-CDC42 antibody (ET1701-7) at 1/500 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (HA601187, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

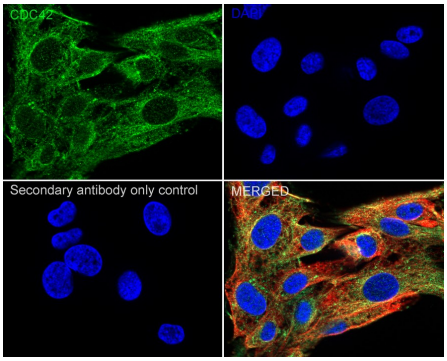

Fig4: Immunocytochemistry analysis of C6 cells labeling CDC42 with Rabbit anti-CDC42 antibody (ET1701-7) at 1/500 dilution.

Cells were fixed in 4% paraformaldehyde for 15 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-CDC42 antibody (ET1701-7) at 1/500 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (HA601187, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

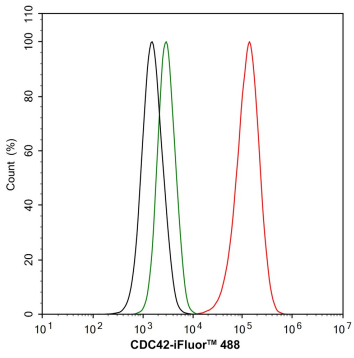

Fig5: Flow cytometric analysis of HepG2 cells labeling CDC42.

Cells were fixed and permeabilized. Then stained with the primary antibody (ET1701-7, 1/1,000) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4℃ for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

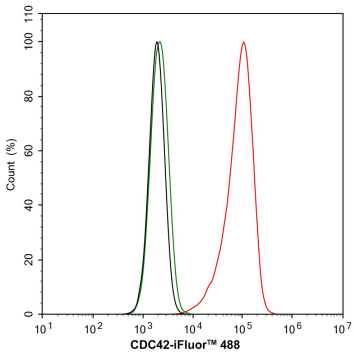

Fig6: Flow cytometric analysis of NIH/3T3 cells labeling CDC42.

Cells were fixed and permeabilized. Then stained with the primary antibody (ET1701-7, 1/1,000) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4℃ for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

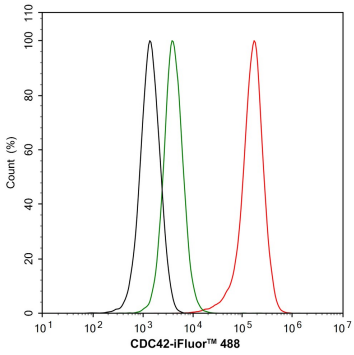

Fig7: Flow cytometric analysis of C6 cells labeling CDC42.

Cells were fixed and permeabilized. Then stained with the primary antibody (ET1701-7, 1/1,000) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4℃ for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

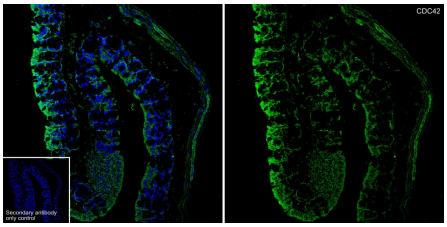

Fig8: Application: IF-Tissue

Species: Mouse

Site: colon

Sample: Paraffin-embedded section

Antibody concentration: 1/500

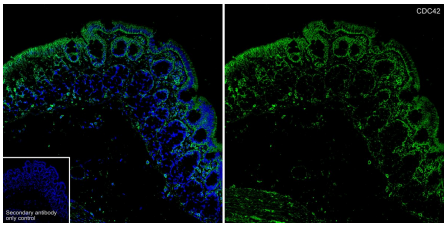

Fig9: Application: IF-Tissue

Species: Rat

Site: colon

Sample: Paraffin-embedded section

Antibody concentration: 1/500

Background References

1. Gerasimcik N et al. The Rho GTPase Cdc42 Is Essential for the Activation and Function of Mature B Cells. J Immunol 194:4750-8 (2015).
2. Francis MK et al. Endocytic membrane turnover at the leading edge is driven by a transient interaction between Cdc42 and GRAF1. J Cell Sci 128:4183-95 (2015).