10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-Cyclophilin E/PPIE Antibody Picoband™ (monoclonal, 4I9)

Catalog # ABO15086

Product Information

Application	WB, IHC, IF, ICC, FC
Primary Accession	Q9UNP9
Host	Mouse
Isotype	Mouse IgG2b
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Lyophilized
Description	Anti-Cyclophilin E/PPIE Antibody Picoband™ (monoclonal, 4I9) . Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500 □g/ml.

Additional Information

Gene ID	10450
Other Names	Peptidyl-prolyl cis-trans isomerase E, PPIase E, 5.2.1.8, Cyclophilin E, Cyclophilin-33, Rotamase E, PPIE, CYP33 {ECO:0000303|PubMed:8977107}
Calculated MW	33431
Application Details	Western blot, 0.25-0.5 □g/ml, Human, Mouse, Rat Immunohistochemistry(Paraffin-embedded Section), 2-5 □g/ml, Human, Rat Immunocytochemistry/Immunofluorescence, 5 □g/ml, Human Flow Cytometry, 1-3 □g/1x10^6 cells, Human
Source	Eukaryota
Contents	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
Clone Names	Clone: 4I9
Immunogen	E.coli-derived human Cyclophilin E/PPIE recombinant protein (Position: M1-V301).
Purification	Immunogen affinity purified.
Storage	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.

Protein Information

Name	PPIE
Synonyms	CYP33 {ECO:0000303|PubMed:8977107}
Function	Involved in pre-mRNA splicing as component of the spliceosome (PubMed:11991638, PubMed:28076346). Combines RNA-binding and PPIase activities (PubMed:18258190, PubMed:20460131, PubMed:20677832, PubMed:8977107). Binds mRNA and has a preference for single-stranded RNA molecules with poly-A and poly-U stretches, suggesting it binds to the poly(A)-region in the 3'-UTR of mRNA molecules (PubMed:18258190, PubMed:20460131, PubMed:8977107). Catalyzes the cis-trans isomerization of proline imidic peptide bonds in proteins (PubMed:18258190, PubMed:20541251, PubMed:20677832, PubMed:8977107). Inhibits KMT2A activity; this requires proline isomerase activity (PubMed:20460131, PubMed:20541251, PubMed:20677832).
Cellular Location	Nucleus
Tissue Location	Found in all the examined tissues including heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas

Background

Peptidylprolyl isomerase E (cyclophilin E), also known as PPIE, is an enzyme which in humans is encoded by the PPIE gene on chromosome 1. The protein encoded by this gene is a member of the peptidyl-prolyl cis-trans isomerase (PPIase) family. PPIases catalyze the cis-trans isomerization of proline imidic peptide bonds in oligopeptides and accelerate the folding of proteins. This protein contains a highly conserved cyclophilin (CYP) domain as well as an RNA-binding domain. It was shown to possess PPIase and protein folding activities, and it also exhibits RNA-binding activity. Alternative splicing results in multiple transcript variants. A related pseudogene, which is also located on chromosome 1, has been identified.

Images

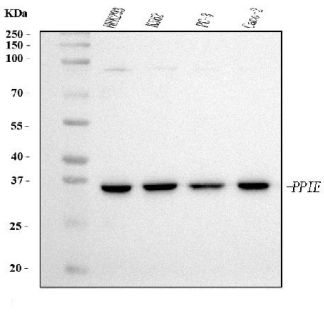


Figure 1. Western blot analysis of Cyclophilin E/PPIE using anti-Cyclophilin E/PPIE antibody (M08021). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human HEK293 whole cell lysates,
Lane 2: human K562 whole cell lysates,
Lane 3: human PC-3 whole cell lysates,
Lane 4: human Caco-2 whole cell lysates.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-Cyclophilin E/PPIE antigen affinity purified monoclonal antibody (Catalog # M08021) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using

an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for Cyclophilin E/PPIE at approximately 35 kDa. The expected band size for Cyclophilin E/PPIE is at 35 kDa.

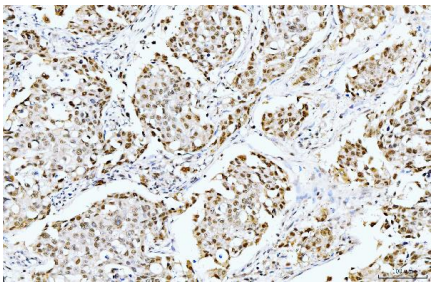


Figure 2. IHC analysis of Cyclophilin E/PPIE using anti-Cyclophilin E/PPIE antibody (M08021). Cyclophilin E/PPIE was detected in a paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Cyclophilin E/PPIE Antibody (M08021) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

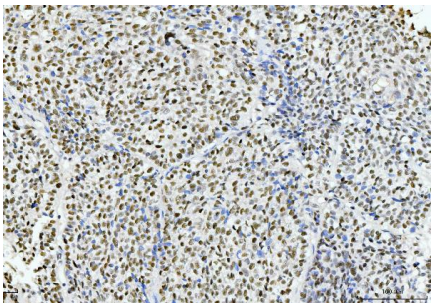


Figure 3. IHC analysis of Cyclophilin E/PPIE using anti-Cyclophilin E/PPIE antibody (M08021). Cyclophilin E/PPIE was detected in a paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Cyclophilin E/PPIE Antibody (M08021) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

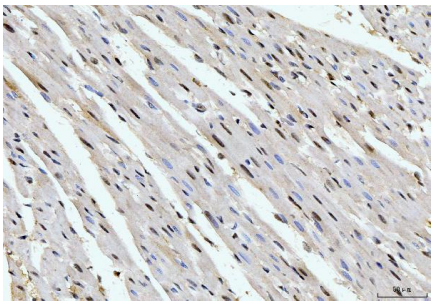


Figure 4. IHC analysis of Cyclophilin E/PPIE using anti-Cyclophilin E/PPIE antibody (M08021). Cyclophilin E/PPIE was detected in a paraffin-embedded section of rat heart tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Cyclophilin E/PPIE Antibody (M08021) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

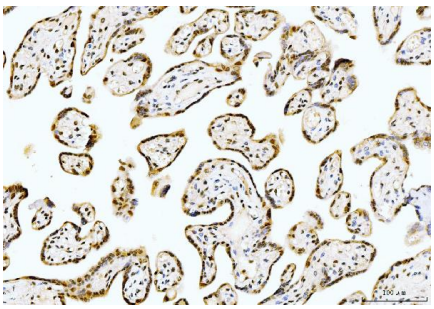


Figure 5. IHC analysis of Cyclophilin E/PPIE using anti-Cyclophilin E/PPIE antibody (M08021). Cyclophilin E/PPIE was detected in a paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Cyclophilin E/PPIE Antibody (M08021) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using

Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

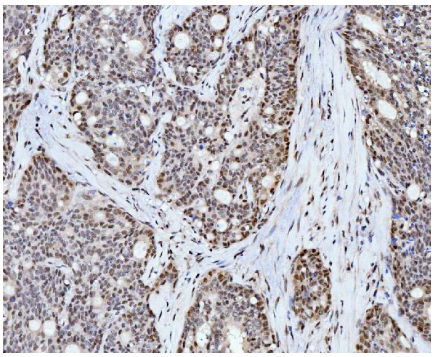


Figure 6. IHC analysis of Cyclophilin E/PPIE using anti-Cyclophilin E/PPIE antibody (M08021). Cyclophilin E/PPIE was detected in a paraffin-embedded section of human gall bladder adenosquamous carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Cyclophilin E/PPIE Antibody (M08021) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

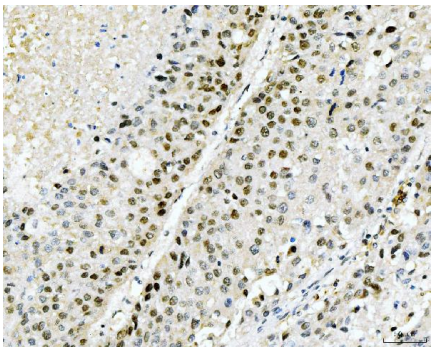


Figure 7. IHC analysis of Cyclophilin E/PPIE using anti-Cyclophilin E/PPIE antibody (M08021). Cyclophilin E/PPIE was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Cyclophilin E/PPIE Antibody (M08021) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

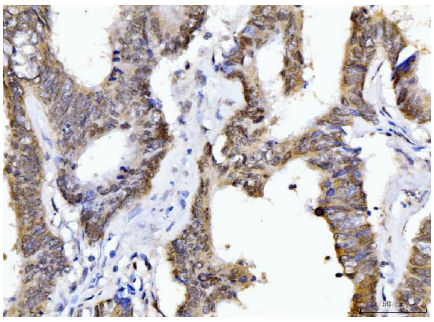


Figure 8. IHC analysis of Cyclophilin E/PPIE using anti-Cyclophilin E/PPIE antibody (M08021). Cyclophilin E/PPIE was detected in a paraffin-embedded section of human colonic adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Cyclophilin E/PPIE Antibody (M08021) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

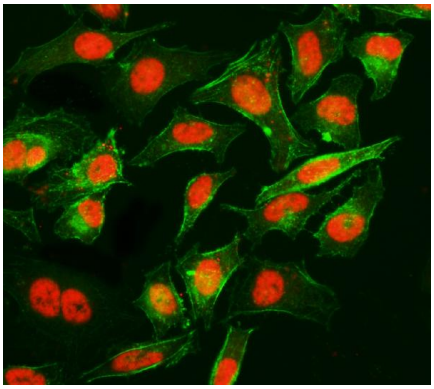


Figure 9. IF analysis of Cyclophilin E/PPIE using anti-Cyclophilin E/PPIE antibody (M08021). Cyclophilin E/PPIE was detected in an immunocytochemical section of Hela cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 µg/mL mouse anti-Cyclophilin E/PPIE Antibody (M08021) overnight at 4°C. DyLight®594 Conjugated Goat Anti-Mouse IgG (BA1141) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The tissue section was developed using Phalloidin-iFluor 488 Conjugated. Visualize using a fluorescence

microscope and filter sets appropriate for the label used.

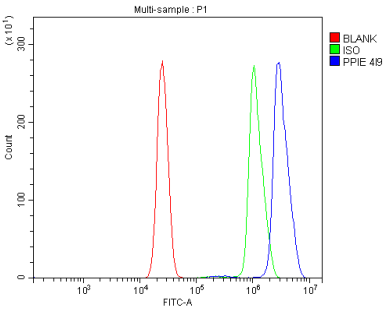


Figure 10. Flow Cytometry analysis of U937 cells using anti-Cyclophilin E/PPIE antibody (M08021).
Overlay histogram showing U937 cells stained with M08021 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Cyclophilin E/PPIE Antibody (M08021, 1 µg/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 µg/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1 µg/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

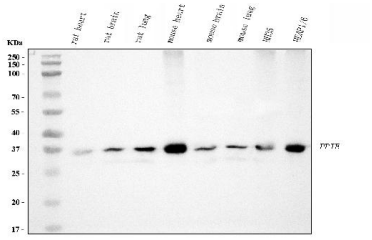


Figure 11. Western blot analysis of Cyclophilin E/PPIE using anti-Cyclophilin E/PPIE antibody (M08021).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: rat heart tissue lysates,
Lane 2: rat brain tissue lysates,
Lane 3: rat lung tissue lysates,
Lane 4: mouse heart tissue lysates,
Lane 5: mouse brain tissue lysates,
Lane 6: mouse lung tissue lysates,
Lane 7: rat RH35 whole cell lysates,
Lane 8: mouse HEPA1-6 whole cell lysates.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-Cyclophilin E/PPIE antigen affinity purified monoclonal antibody (Catalog # M08021) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for Cyclophilin E/PPIE at approximately 35 kDa. The expected band size for Cyclophilin E/PPIE is at 35 kDa.

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