10320 Camino Santa Fe, Suite G
San Diego, CA 92121
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Anti-Cyclophilin E/PPIE Antibody Picoband™ (monoclonal, 4I9)

Catalog # ABO15086

Specification

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

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

Application Details
Western blot, 0.25-0.5 µg/ml, Human, Mouse, Rat
 Immunohistochemistry(Paraffin-embedded Section), 2-5 µg/ml, Human, Rat
 Immunocytochemistry/Immunofluorescence, 5 µg/ml, Human
 Flow Cytometry, 1-3 µg/1x10^6 cells, Human

Contents
Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.

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.**

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

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

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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

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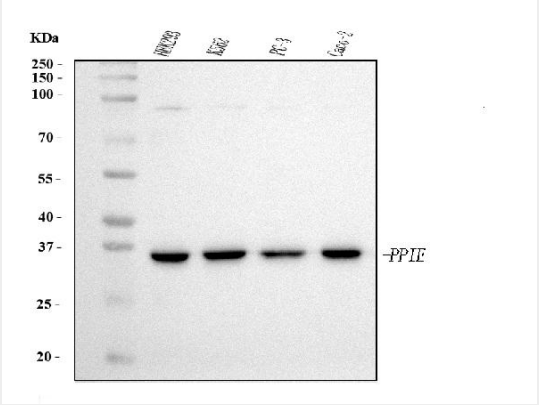

Figure 1. Western blot analysis of Cyclophilin E/PPIE using anti-Cyclophilin E/PPIE antibody (M08021).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
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.

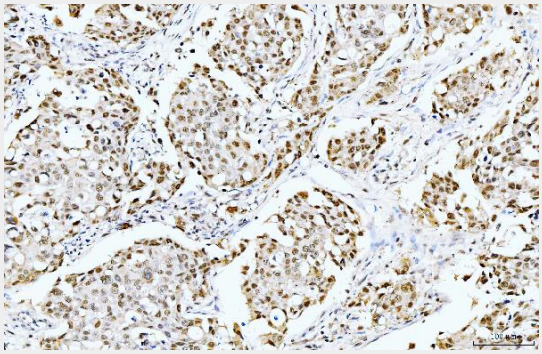

Figure 2. IHC analysis of Cyclophilin E/PPIE using anti-Cyclophilin E/PPIE antibody (M08021).
Cyclophilin E/PPIE was detected in a paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section 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.

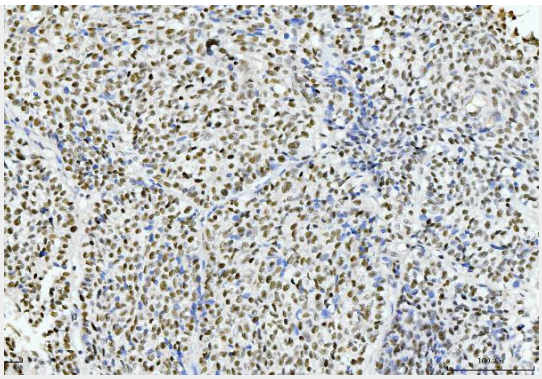

Figure 3. IHC analysis of Cyclophilin E/PPIE using anti-Cyclophilin E/PPIE antibody (M08021). Cyclophilin E/PPIE was detected in a paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section 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.

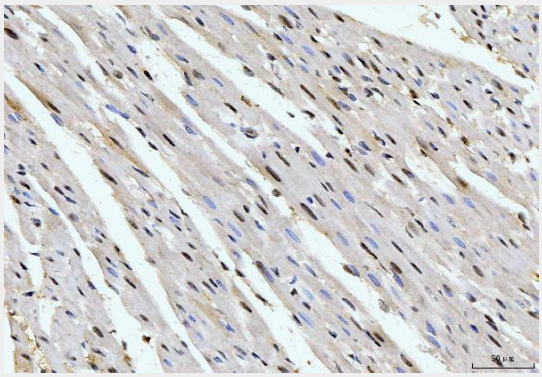

Figure 4. IHC analysis of Cyclophilin E/PPIE using anti-Cyclophilin E/PPIE antibody (M08021). Cyclophilin E/PPIE was detected in a paraffin-embedded section of rat heart tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked 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.

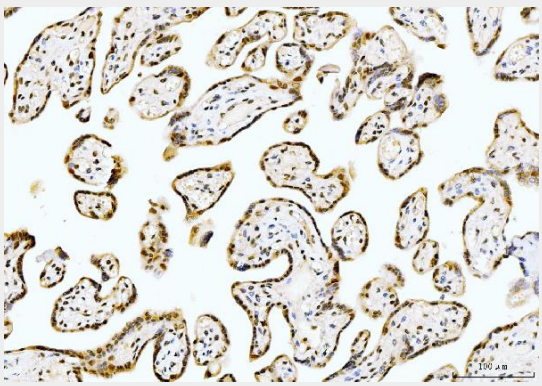

Figure 5. IHC analysis of Cyclophilin E/PPIE using anti-Cyclophilin E/PPIE antibody (M08021). Cyclophilin E/PPIE was detected in a paraffin-embedded section of human placenta tissue. Heat

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.

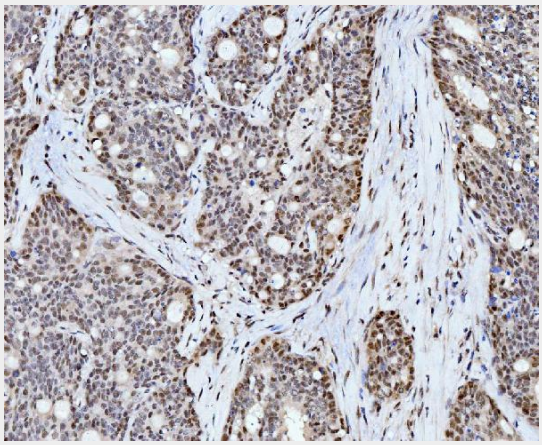

Figure 6. IHC analysis of Cyclophilin E/PPIE using anti-Cyclophilin E/PPIE antibody (M08021). Cyclophilin E/PPIE was detected in a paraffin-embedded section of human gall bladder adenosquamous carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). 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.

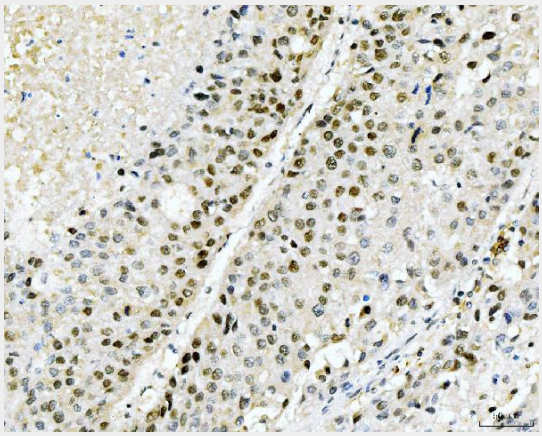

Figure 7. IHC analysis of Cyclophilin E/PPIE using anti-Cyclophilin E/PPIE antibody (M08021). Cyclophilin E/PPIE was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section 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.

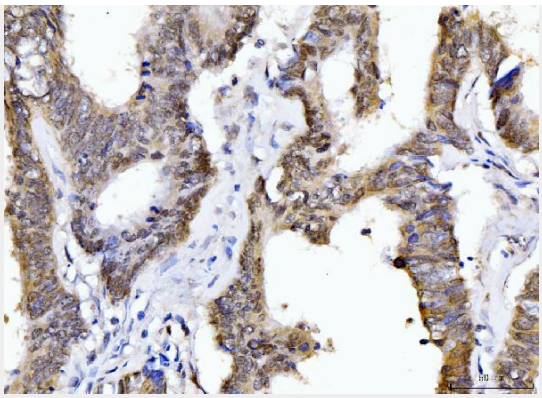

Figure 8. IHC analysis of Cyclophilin E/PPIE using anti-Cyclophilin E/PPIE antibody (M08021). Cyclophilin E/PPIE was detected in a paraffin-embedded section of human colonic adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue 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.

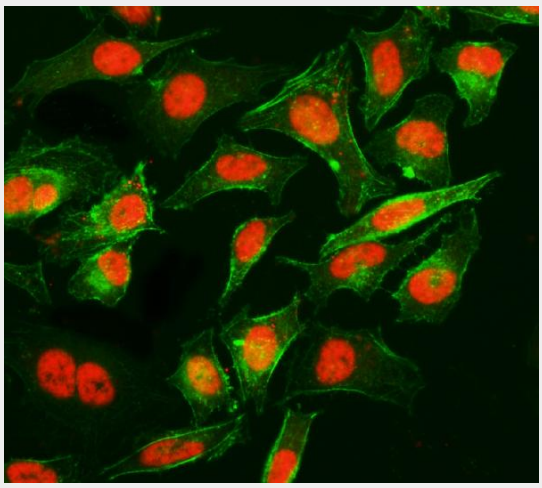

Figure 9. IF analysis of Cyclophilin E/PPIE using anti-Cyclophilin E/PPIE antibody (M08021). Cyclophilin E/PPIE was detected in an immunocytochemical section of Hela cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 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.

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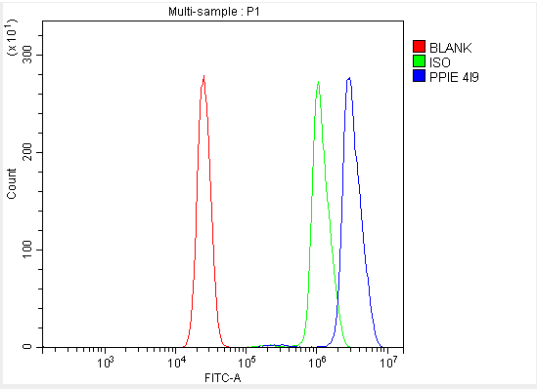

Figure 10. Flow Cytometry analysis of U937 cells using anti-Cyclophilin E/PPIE antibody (M08021). Overlay histogram showing U937 cells stained with M08021 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Cyclophilin E/PPIE Antibody (M08021, 1 µg/1x10^6 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.

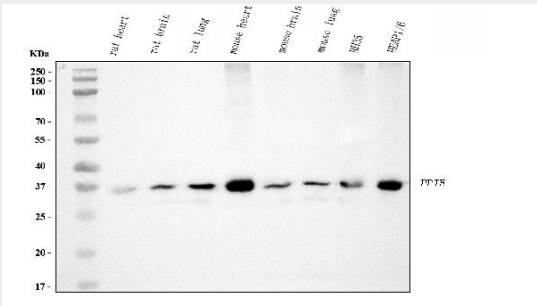

Figure 11. Western blot analysis of Cyclophilin E/PPIE using anti-Cyclophilin E/PPIE antibody (M08021). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
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.

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