

Anti-LYRIC/MTDH Antibody Picoband™

Catalog Number: PB9338

About MTDH

MTDH (Metadherin), also known as protein LYRIC or astrocyte elevated gene-1 protein (AEG-1) is a protein that in humans is encoded by the MTDH gene. AEG-1 is involved in HIF-1alpha mediated angiogenesis. AEG-1 also interacts with SND1 and involved in RNA-induced silencing complex (RISC) and plays very important role in RISC and miRNA functions. AEG-1 induces an oncogene called Late SV40 factor (LSF/TFCP2) which is involved in thymidylate synthase (TS) induction and DNA biosynthesis synthesis. Late SV40 factor (LSF/TFCP2) enhances angiogenesis by transcriptionally up-regulating matrix metalloproteinase-9 (MMP9). AEG-1 acts as an oncogene in melanoma, malignant glioma, breast cancer and hepatocellular carcinoma. It is highly expressed in these cancers and helps in progression and development of these cancers. It is induced by c-Myc oncogene and plays very important role in anchorage independent growth of cancer cells.

Overview

Product Name	Anti-LYRIC/MTDH Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-LYRIC/MTDH Antibody Picoband™ catalog # PB9338. Tested in IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Storage Instructions	Store 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 freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q86UE4

Technical Details

Immunogen	E.coli-derived human LYRIC recombinant protein (Position: D101-Q270). Human LYRIC shares 94% amino acid (aa) sequence identity with both mouse and rat LYRIC.
Predicted Reactive Species	Bovine
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG

Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, By Heat Immunocytochemistry, 0.5-1ug/ml Western blot, 0.1-0.5ug/ml

Anti-LYRIC/MTDH Antibody Picoband™ (PB9338) Images

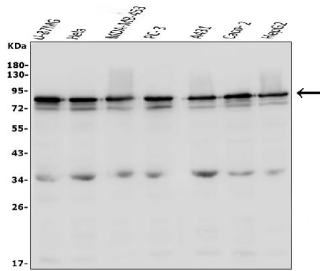


Figure 1. Western blot analysis of LYRIC using anti-LYRIC antibody (PB9338).

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 50ug of sample under reducing conditions.

Lane 1: U-87MG whole cell lysates,

Lane 2: Hela whole cell lysates,

Lane 3: MDA-MB-453 whole cell lysates,

Lane 4: PC-3 whole cell lysates,

Lane 5: A431 whole cell lysates,

Lane 6: CACO-2 whole cell lysates,

Lane 7: HepG2 whole cell lysates,

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes.

Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-LYRIC antigen affinity purified polyclonal antibody (Catalog # PB9338) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit 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 # EK1002) with Tanon 5200 system. A specific band was detected for LYRIC at approximately 70-80KD. The expected band size for LYRIC is at 70-80KD.

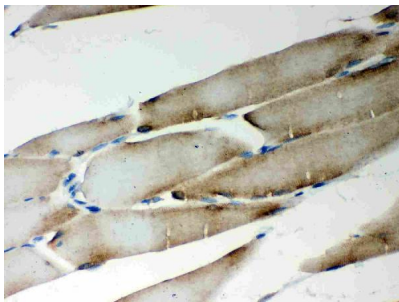


Figure 2. IHC analysis of LYRIC using anti-LYRIC antibody (PB9338).

LYRIC was detected in paraffin-embedded section of Rat Skeletal Muscle Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-LYRIC Antibody (PB9338) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

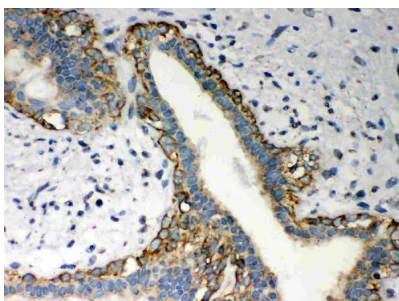


Figure 3. IHC analysis of LYRIC using anti-LYRIC antibody (PB9338).

LYRIC was detected in paraffin-embedded section of Human Mammary Cancer Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-LYRIC Antibody (PB9338) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

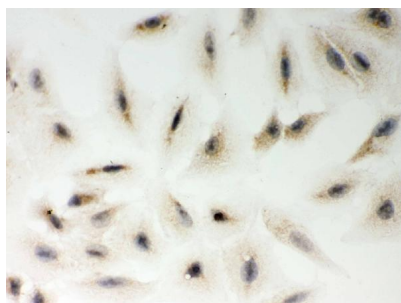


Figure 4. IHC analysis of LYRIC using anti-LYRIC antibody (PB9338).

LYRIC was detected in immunocytochemical section of A549 cell. 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 1ug/ml rabbit anti-LYRIC Antibody (PB9338) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

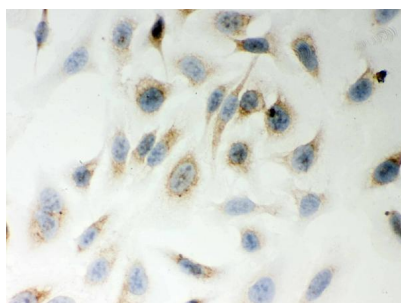


Figure 5. IHC analysis of LYRIC using anti-LYRIC antibody (PB9338).

LYRIC was detected in immunocytochemical section of HeLa cell. 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 1ug/ml rabbit anti-LYRIC Antibody (PB9338) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

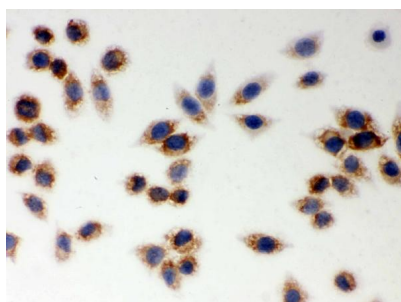


Figure 6. IHC analysis of LYRIC using anti-LYRIC antibody (PB9338).

LYRIC was detected in immunocytochemical section of SMMC-7721 cell. 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 1ug/ml rabbit anti-LYRIC Antibody (PB9338) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

1 Publications Citing This Product

1. PubMed ID: 10.1111/1440-1681.12767, Silencing of astrocyte elevated gene 21 inhibits proliferation and migration of melanoma cells and induces apoptosis

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