

## Anti-LYRIC Antibody Picoband® (monoclonal, 2E5G3)

Catalog Number: M04060-2

### 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

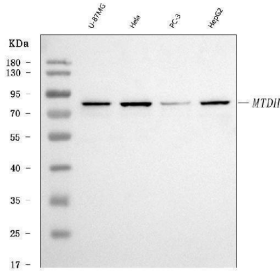
Product Name	Anti-LYRIC Antibody Picoband® (monoclonal, 2E5G3)
Reactive Species	Human
Description	Boster Bio Anti-LYRIC Antibody Picoband® (monoclonal, 2E5G3) catalog # M04060-2. Tested in Flow Cytometry, IHC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	Flow Cytometry, IHC, WB
Clonality	Monoclonal 2E5G3
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .
Storage Instructions	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.
Host	Mouse
Uniprot ID	Q86UE4

### Technical Details

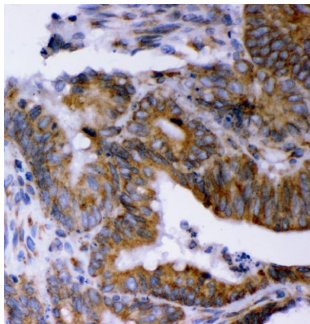
Immunogen	E.coli-derived human LYRIC recombinant protein (Position: D101-Q270). Human LYRIC shares 94% amino acid (aa) sequence identity with both mouse and rat LYRIC.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Mouse IgG2b

Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10 <sup>6</sup> cells, Human

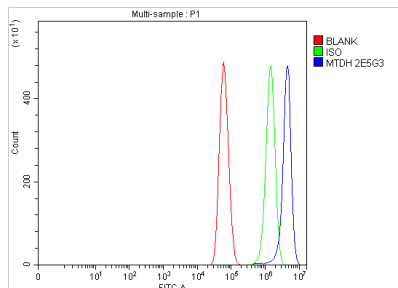
## Anti-LYRIC Antibody Picoband® (monoclonal, 2E5G3) (M04060-2) Images



Western blot analysis of LYRIC using anti-LYRIC antibody (M04060-2). 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 U-87MG whole cell lysates, Lane 2: human Hela whole cell lysates, Lane 3: human PC-3 whole cell lysates, Lane 4: human HepG2 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-LYRIC antigen affinity purified monoclonal antibody (Catalog # M04060-2) 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-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 LYRIC at approximately 85 kDa. The expected band size for LYRIC is at 75 kDa.



IHC analysis of LYRIC using anti-LYRIC antibody (M04060-2). LYRIC was detected in a paraffin-embedded section of human colorectal 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 ug/ml mouse anti-LYRIC Antibody (M04060-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.



Flow Cytometry analysis of U87 cells using anti-LYRIC antibody (M04060-2). Overlay histogram showing U87 cells stained with M04060-2 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-LYRIC Antibody (M04060-2, 1 ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1 ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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