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antibody and ELISA experts

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Anti-Emerin EMD Antibody Picoband® (monoclonal, 5A10)

Catalog Number: M00714

About EMD

APOBEC3G (apolipoprotein B mRNA editing enzyme, catalytic polypeptide-like 3G) is a human enzyme encoded by the APOBEC3G gene. This gene is a member of the cytidine deaminase gene family. It is one of seven related genes or pseudogenes found in a cluster, thought to result from gene duplication, on chromosome 22. Members of the cluster encode proteins that are structurally and functionally related to the C to U RNA-editing cytidine deaminase APOBEC1. It is thought that the proteins may be RNA editing enzymes and have roles in growth or cell cycle control. The protein encoded by this gene has been found to be a specific inhibitor of human immunodeficiency virus-1 (HIV-1) infectivity.

Overview

Product Name	Anti-Emerin EMD Antibody Picoband® (monoclonal, 5A10)
Reactive Species	Human
Description	Boster Bio Anti-Emerin EMD Antibody Picoband® (monoclonal, 5A10) catalog # M00714. Tested in Flow Cytometry, IHC, ICC, 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, ICC, WB
Clonality	Monoclonal 5A10
Formulation	Each vial contains 4mg Trehalose, 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	Mouse
Uniprot ID	P50402

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human Emerin, different from the related mouse sequence by eight amino acids, and from the related rat sequence by nine amino acids.
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), IHC(F) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Mouse IgG1

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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, 0.1-0.5ug/ml Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml Immunohistochemistry (Frozen Section), 0.5-1ug/ml Immunocytochemistry, 0.5-1ug/ml Flow Cytometry (Fixed), 1-3ug/1x10^6 cells

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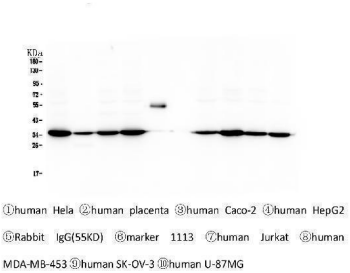
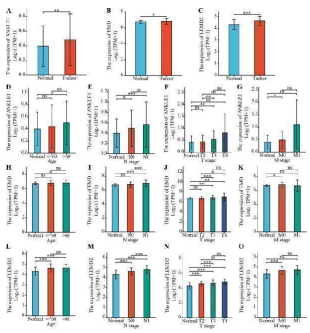
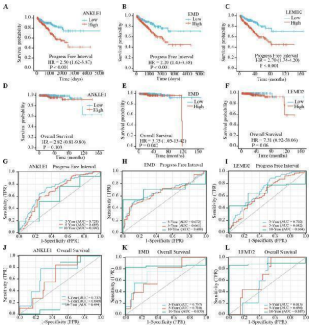
Anti-Emerin EMD Antibody Picoband® (monoclonal, 5A10) (M00714) Images



Western blot analysis of Emerin using anti-Emerin antibody (M00714). 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: human Hela whole cell lysates, Lane 2: human placenta tissue lysates, Lane 3: human Caco-2 whole cell lysates, Lane 4: human HepG2 whole cell lysates,Lane 5: Rabbit IgG, Lane 6: Marker 1113, Lane 7: human Jurkat whole cell lysates. Lane 8: human MDA-MB-453 whole cell lysates, Lane 9: human SK-OV-3 whole cell lysates, Lane 10: human SW620 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 mouse anti-Emerin antigen affinity purified monoclonal antibody (Catalog # M00714) 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.



The expressions of ANKLE1, EMD, and LEMD2 and their relationship with clinical parameters of PRAD. A – C ANKLE1, EMD, and LEMD2 levels were increased in prostate cancer tissues compared to normal tissues (RNA-seq data from TCGA PRAD). The number of the normal group is 52, and the number of the tumor group is 499. D – G Higher ANKLE1 expression was associated with age, N stage, T stage, and M stage. H – K Higher EMD expression was associated with age, N stage, T stage, and M stage. L – O Higher LEMD2 expression was associated with age, N stage, T stage, and M stage. Compared with indicated group, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. n.s., no significant difference Index in PubMed under a CC BY license. PMID: 35650630



The prognostic analysis of ANKLE1, EMD, and LEMD2 in prostate cancer. A – C The progress-free interval of ANKLE1, EMD, and LEMD2 mRNA level in prostate cancer patients (Kaplan-Meier plotter, tumor samples: n =499). D – F The overall survival of ANKLE1, EMD, and LEMD2 mRNA level in prostate cancer patients (Kaplan-Meier plotter, tumor samples: n = 499). G – L Time-dependent survival ROC curve analysis of ANKLE1, EMD, and LEMD2 to predict 3-, 5-, and 10-year survival rates Index in PubMed under a CC BY license. PMID: 35650630

qPCR, WB, and IHC validation of ANKLE1, EMD, and LEMD2 in prostate cancer. A – C The mRNA levels of ANKLE1, EMD, and LEMD2 in human prostate tumor specimens were

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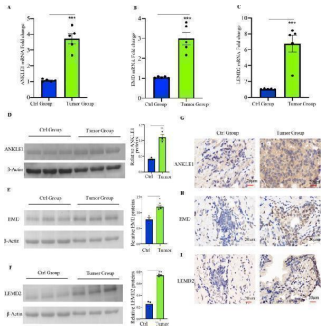
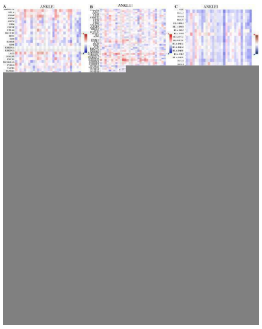
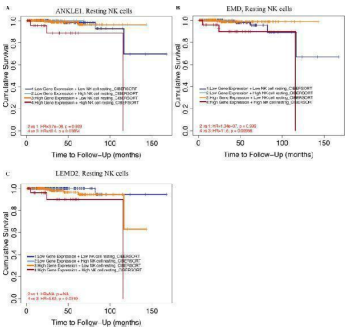


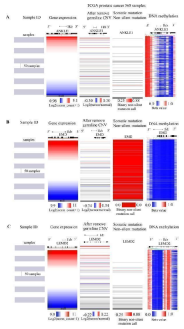
validated by qPCR. D – I The protein levels of ANKLE1, EMD, and LEMD2 in human prostate tumor specimens were validated by WB and IHC. The data (means ± SEM) shown (A – C , n = 5; D – I , n = 3) were representative of three separate experiments. Compared with the indicated group, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ Index in PubMed under a CC BY license. PMID: 35650630



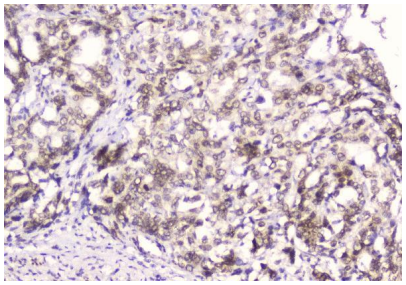
Associations of ANKLE1, EMD, and LEMD2 expressions with immunomodulators and chemokines from the TISIDB database. A – I Correlations between immunomodulators (including immune inhibitors, immunostimulators, and MHC molecules) and the expression levels of ANKLE1, EMD, and LEMD2. J – L Correlations between chemokines and the expression levels of ANKLE1, EMD, and LEMD2 Index in PubMed under a CC BY license. PMID: 35650630



Comparison of KM survival curves of ANKLE1, EMD, and LEMD2 expressions based on immune cells. A High ANKLE1 levels enriched in resting NK cells had worse OS in PRAD. B High EMD levels enriched in resting NK cells had worse OS in PRAD. C High LEMD2 levels enriched in resting NK cells had worse OS in PRAD Index in PubMed under a CC BY license. PMID: 35650630



The analysis of mutation, CNV, and methylation for ANKLE1, EMD, and LEMD2 expressions in PRAD. A – C Heat map showing the correlations between ANKLE1, EMD, and LEMD2 mRNA levels and somatic mutations, CNV, and methylation in prostate cancer through the UCSC Xena database Index in PubMed under a CC BY license. PMID: 35650630



IHC analysis of Emerin using anti-Emerin antibody (M00714). Emerin was detected in paraffin-embedded section of human gastric 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 2ug/ml mouse anti-Emerin Antibody (M00714) 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

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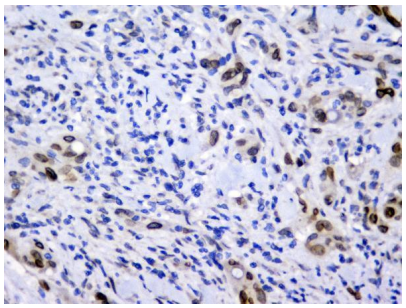
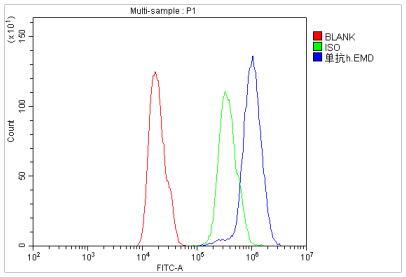
DAB as the chromogen.



IHC analysis of Emerin using anti-Emerin antibody (M00714). Emerin was detected in paraffin-embedded section of human rectal 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 2ug/ml mouse anti-Emerin Antibody (M00714) 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.



Flow Cytometry analysis of A431 cells using anti-Emerin antibody (M00714). Overlay histogram showing A431 cells stained with M00714 (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-Emerin Antibody (M00714,1ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1ug/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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