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Anti-NME2 Antibody Picoband®

Catalog Number: PA1830

About NME2

NME2 (NME/NM23 nucleoside diphosphate kinase 2) also called non-metastatic cells 2, protein (NM23B) expressed in, NM23-H2, NM23B or NDPKB, is identical to the beta subunit of human erythrocyte NDP kinase. Little to no expression was detected in other mouse tissues examined. Using Northern blot analysis, Masse et al. (2002) detected high expression of mouse Nme2, which they called nm23-M2, in heart, liver, and kidney, with intermediate expression in skeletal muscle. In situ hybridization of 15-day postcoitum mouse embryos showed ubiquitous Nme2 expression. The mouse and human NME2 genes contain 5 exons and span about 6.0 kb. The NME2 gene is mapped on 17q21.33. Srivastava et al. (2006) concluded that histidine phosphorylation regulates KCa3.1 channel activity and that NDPBK is critical to the channel activity and the activation of CD4 T cells.

Overview

Product Name	Anti-NME2 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-NME2 Antibody catalog # PA1830. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. 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, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
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	P22392

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human NME2, different from the related mouse and rat sequences by one amino acid.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western

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	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	Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat Immunocytochemistry , 0.5-1ug/ml, Human Immunocytochemistry/Immunofluorescence, 2ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10^6 cells, Human

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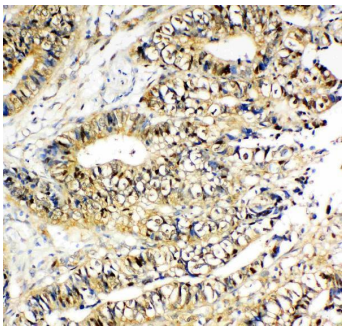
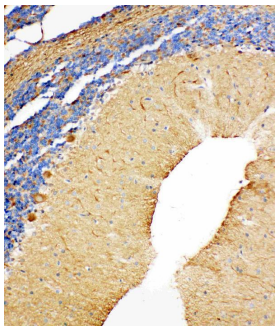
Anti-NME2 Antibody Picoband® (PA1830) Images

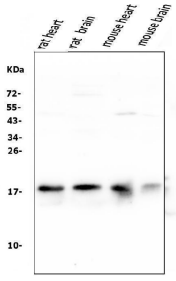


Anti-NME2 antibody, PA1830, IHC(P)IHC(P): Human Intestinal Cancer Tissue



Anti-NME2 antibody, PA1830, IHC(P)IHC(P): Rat Cerebellum Tissue

Anti-NME2 antibody, PA1830, ICCICC: HELA Cell



Western blot analysis of NME2 using anti-NME2 antibody (PA1830). 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: rat heart tissue lysates, Lane 2: rat brain tissue lysates, Lane 3: mouse heart tissue lysates, Lane 4: mouse brain tissue 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-NME2 antigen affinity purified polyclonal antibody (Catalog # PA1830) 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 1:5000 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 NME2 at approximately 17KD. The

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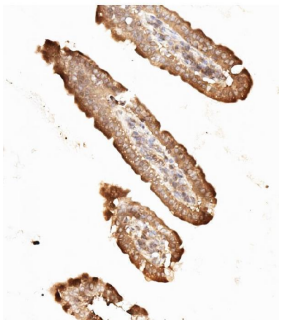
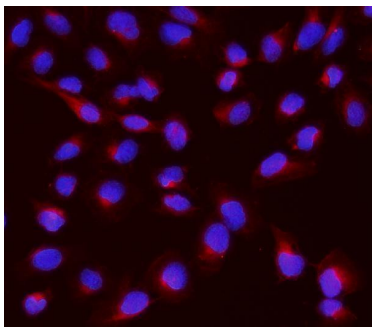
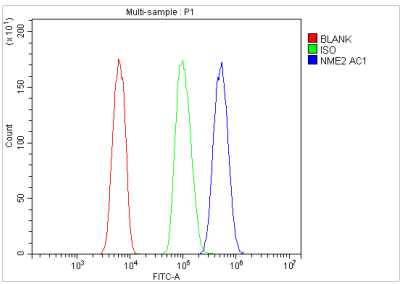
expected band size for NME2 is at 17KD.



IHC analysis of NME2 using anti-NME2 antibody (PA1830). NME2 was detected in paraffin-embedded section of mouse intestine tissues. 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-NME2 Antibody (PA1830) 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 Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IF analysis of NME2 using anti-NME2 antibody (PA1830). NME2 was detected in immunocytochemical section of U20S 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 2ug/mL rabbit anti-NME2 Antibody (PA1830) overnight at 4°C. DyLight®550 Conjugated Goat Anti-Rabbit IgG (BA1135) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry analysis of HL-60 cells using anti-NME2 antibody (PA1830). Overlay histogram showing HL-60 cells stained with PA1830 (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 rabbit anti-NME2 Antibody (PA1830, 1ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

Anti-NME2 Antibody

For Research Use Only. Not for use in diagnostic procedures.