BOSTER BIOLOGICAL TECHNOLOGY
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Anti-NM23A/NME1 Antibody Picoband®

Catalog Number: PA1829

About NME1

NME1 (NME/NM23 nucleoside diphosphate kinase 1) also called non-metastatic cells 1, protein (NM23A) expressed in,NM23, NM23-H1, NDPKA, GAAD or AWD, is an enzyme that in humans is encoded by the NME1 gene. The promoters of the mouse and human NME1 genes, like those of other NME genes, contain several binding sites for AP2, NF1, Sp1, LEF1, and response elements to glucocorticoid receptors. The NME1 gene is mapped on 17q21.33. Immunofluorescence microscopy demonstrated colocalization of NME1 in nuclei of B cells expressing EBNA3C. Expression of EBNA3C reversed the ability of NME1 to inhibit migration of BL and breast carcinoma cells. NM23H1 bound SET and was released from inhibition by GZMA cleavage of SET. After GZMA loading or cytotoxic T lymphocyte attack, SET and NM23H1 translocated to the nucleus and SET was degraded, allowing NM23H1 to nick chromosomal DNA. Using a Drosophila model system, Dammai et al. (2003) showed that the Drosophila NME1 homolog, awd, regulates trachea cell motility by modulating FGFR levels through a dynamin -mediated pathway.

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Overview

Product Name	Anti-NM23A/NME1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-NM23A/NME1 Antibody catalog # PA1829. Tested in Flow Cytometry, IHC, IHC-F, 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, IHC, IHC-F, 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	P15531

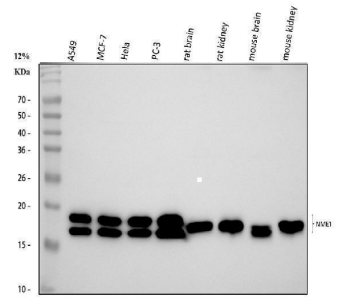
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Technical Details

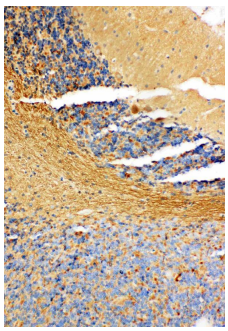
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human NM23A, different from the related mouse sequence by two amino acids and from rat sequence by one amino acid.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P), IHC(F) 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	Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat Western blot, 0.1-0.5ug/ml, Human, Rat, Mouse Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Human Immunocytochemistry, 0.5-1ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10^6 cells, Human Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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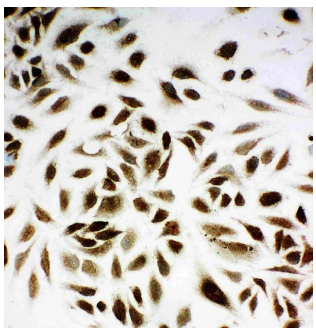
Anti-NM23A/NME1 Antibody Picoband® (PA1829) Images



Western blot analysis of NM23A using anti-NM23A antibody (PA1829). 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 A549 whole cell lysates, Lane 2: human MCF-7 whole cell lysates, Lane 3: human Hela whole cell lysates, Lane 4: human PC-3 whole cell lysates, Lane 5: rat brain tissue lysates, Lane 6: rat kidney tissue lysates, Lane 7: mouse brain tissue lysates, Lane 8: mouse kidney tissue 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 rabbit anti-NM23A antigen affinity purified polyclonal antibody (Catalog # PA1829) 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 NM23A at approximately 17 kDa. The expected band size for NM23A is at 17 kDa.



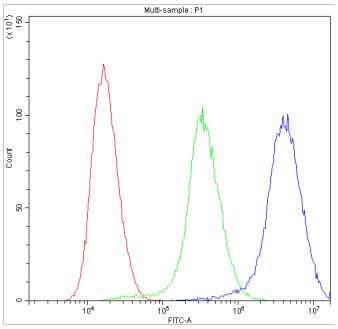
IHC analysis of NM23A using anti-NM23A antibody (PA1829). NM23A was detected in paraffin-embedded section of Rat Cerebellum tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-NM23A Antibody (PA1829) 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.



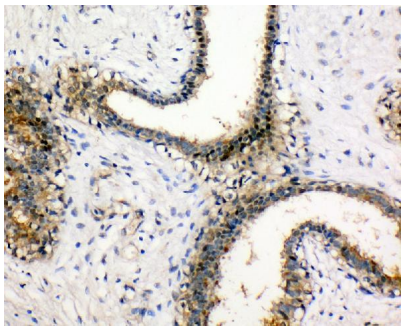
IHC analysis of NM23A using anti-NM23A antibody (PA1829). NM23A was detected in immunocytochemical section of HELA Cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 1ug/ml rabbit anti-NM23A Antibody (PA1829) 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 Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

Flow Cytometry analysis of Hela cells using anti-NME1 antibody (PA1829). Overlay histogram showing Hela cells stained with PA1829 (Blue line). To facilitate intracellular

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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-NME1 Antibody (PA1829,1ug/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.



IHC analysis of NM23A using anti-NM23A antibody (PA1829). NM23A 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-NM23A Antibody (PA1829) 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.

1 Publications Citing This Product

1. PubMed ID: 27330777, Mutation of the nm23-H1 gene has a non-dominant role in colorectal adenocarcinoma

Visit bosterbio.com/anti-nm23a-antibody-pa1829-boster.html to see all 1 publications.

Anti-NM23A/NME1 Antibody

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