

## Product datasheet for **UM800025CF**

### NM23A (NME1) Mouse Monoclonal Antibody [Clone ID: UMAB94]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	UMAB94
Applications:	10k-ChIP, IF, IHC, WB
Recommended Dilution:	WB 1:500, IHC 1:100, IF 1:100
Reactivity:	Human, Rat, Monkey, Dog
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human NME1 (NP_937818) produced in E.coli.
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	19.5 kDa
Gene Name:	NME/NM23 nucleoside diphosphate kinase 1
Database Link:	<a href="#">NP_937818</a> <a href="#">Entrez Gene 191575 RatEntrez Gene 4830 Human P15531</a>



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**Background:**

This gene (NME1) was identified because of its reduced mRNA transcript levels in highly metastatic cells. Nucleoside diphosphate kinase (NDK) exists as a hexamer composed of 'A' (encoded by this gene) and 'B' (encoded by NME2) isoforms. Mutations in this gene have been identified in aggressive neuroblastomas. Two transcript variants encoding different isoforms have been found for this gene. Co-transcription of this gene and the neighboring downstream gene (NME2) generates naturally-occurring transcripts (NME1-NME2), which encodes a fusion protein comprised of sequence sharing identity with each individual gene product. [provided by RefSeq, Jul 2008]

**Synonyms:**

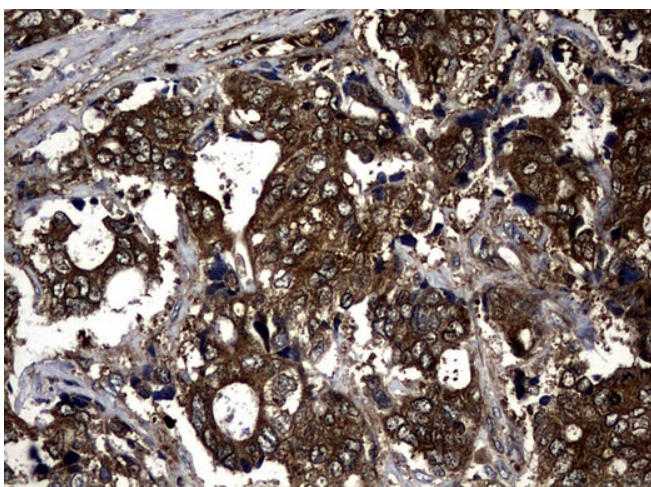
AWD; GAAD; NB; NBS; NDKA; NDPK-A; NDPKA; NM23; NM23-H1

**Protein Families:**

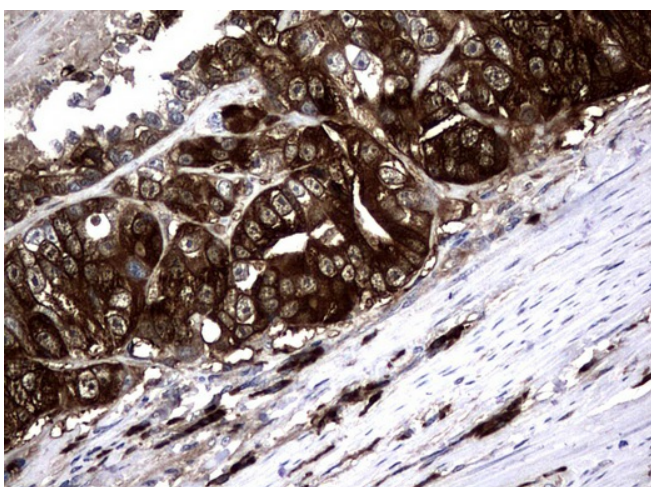
Druggable Genome, Stem cell - Pluripotency

**Protein Pathways:**

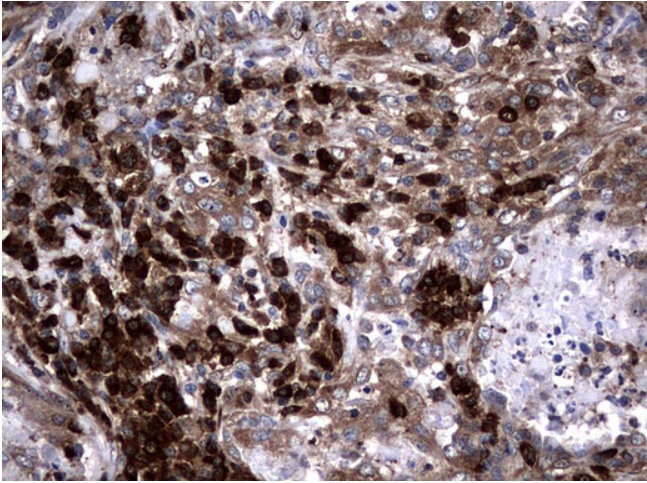
Metabolic pathways, Purine metabolism, Pyrimidine metabolism

**Product images:**

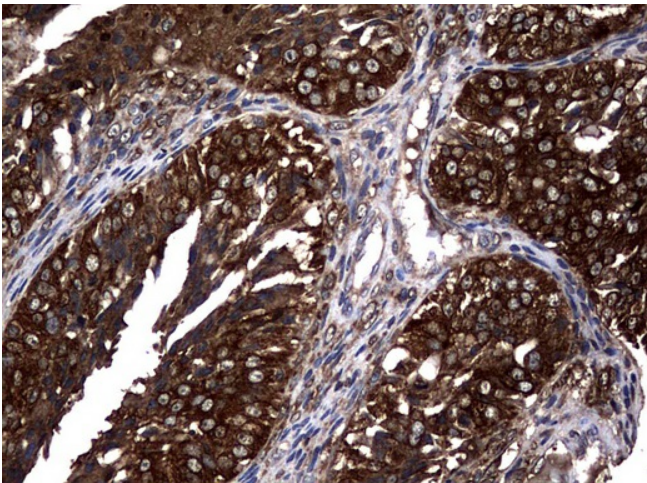
Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human breast tissue using anti-NME1 mouse monoclonal antibody. ([UM800025]; heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min)



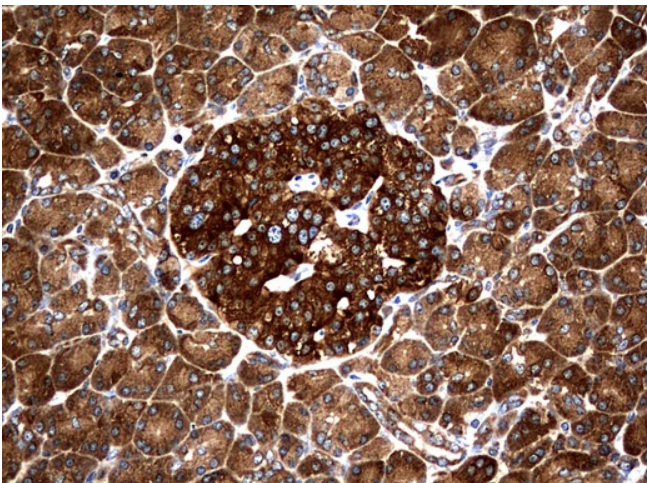
Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human colon tissue using anti-NME1 mouse monoclonal antibody. ([UM800025]; heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min)



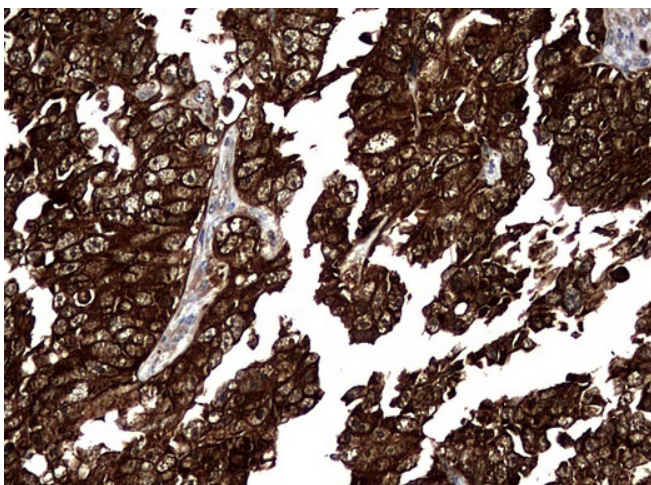
Immunohistochemical staining of paraffin-embedded Carcinoma of Human lung tissue using anti-NME1 mouse monoclonal antibody. ([UM800025]; heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min)



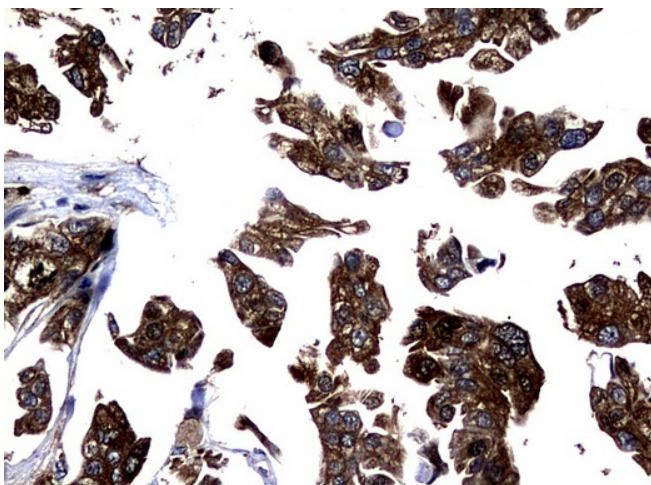
Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human ovary tissue using anti-NME1 mouse monoclonal antibody. ([UM800025]; heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min)



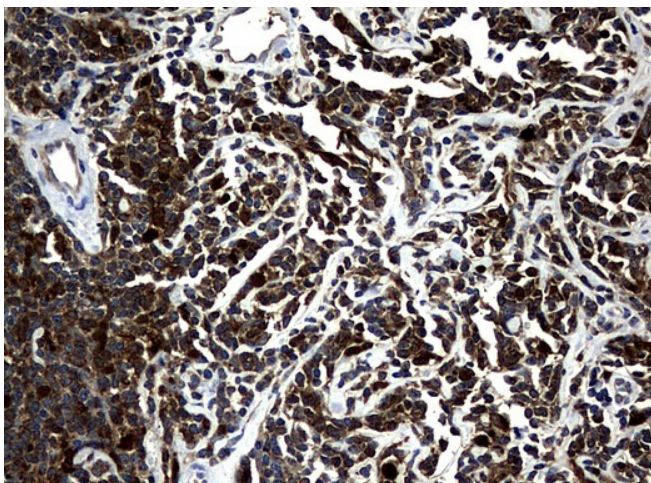
Immunohistochemical staining of paraffin-embedded Human pancreas tissue using anti-NME1 mouse monoclonal antibody. ([UM800025]; heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min)



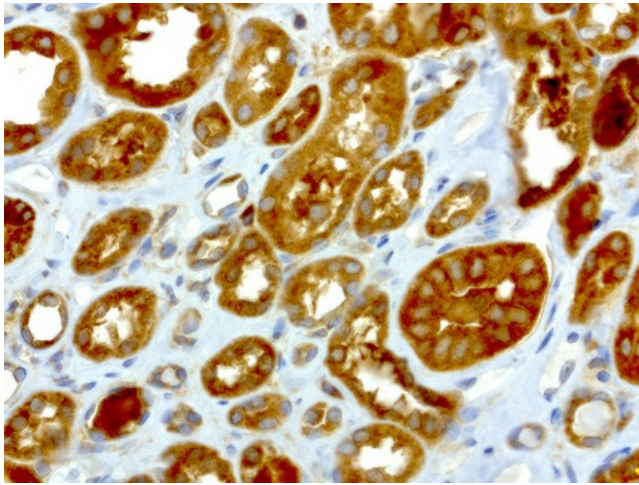
Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human endometrium tissue using anti-NME1 mouse monoclonal antibody. ([UM800025]; heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min)



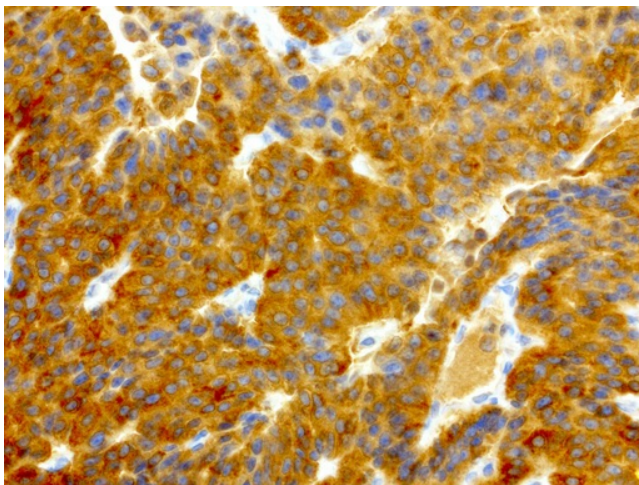
Immunohistochemical staining of paraffin-embedded Carcinoma of Human bladder tissue using anti-NME1 mouse monoclonal antibody. ([UM800025]; heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min)



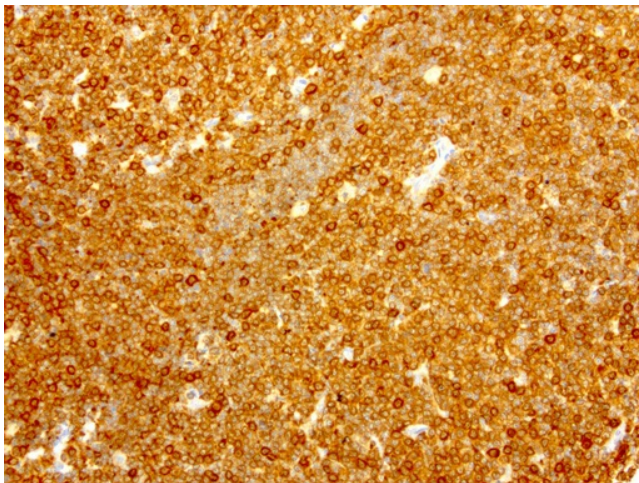
Immunohistochemical staining of paraffin-embedded Human lymphoma tissue using anti-NME1 mouse monoclonal antibody. ([UM800025]; heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min)



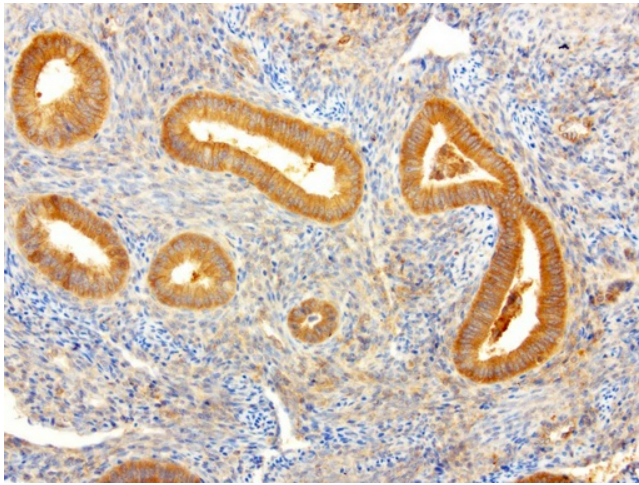
Immunohistochemical staining of paraffin-embedded human kidney using anti-NME1 clone UMAB94 mouse monoclonal antibody ([UM800025]) at 1:4000 with Polink2 Broad HRP DAB detection kit; heat-induced epitope retrieval with GBI ACCEL pH8.7 HIER buffer using pressure chamber for 3 minutes at 110C. Cytoplasmic staining is very strong in the tubule epithelial cells of the kidney.



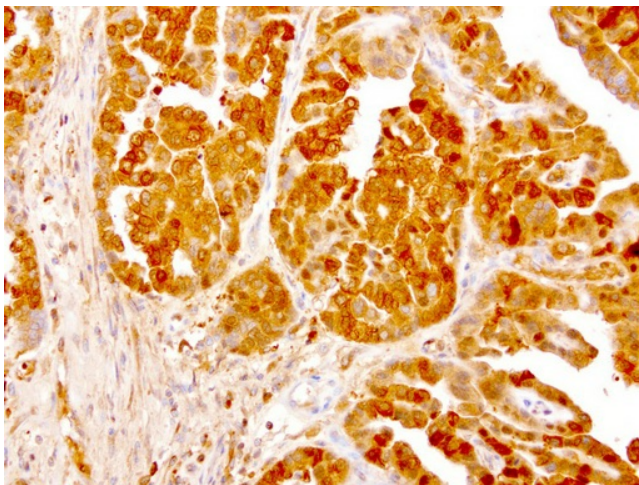
Immunohistochemical staining of paraffin-embedded human lung cancer using anti-NME1 clone UMAB94 mouse monoclonal antibody ([UM800025]) at 1:4000 with Polink2 Broad HRP DAB detection kit; heat-induced epitope retrieval with GBI ACCEL pH8.7 HIER buffer using pressure chamber for 3 minutes at 110C. Cytoplasmic staining is very strong in the tumor cells.



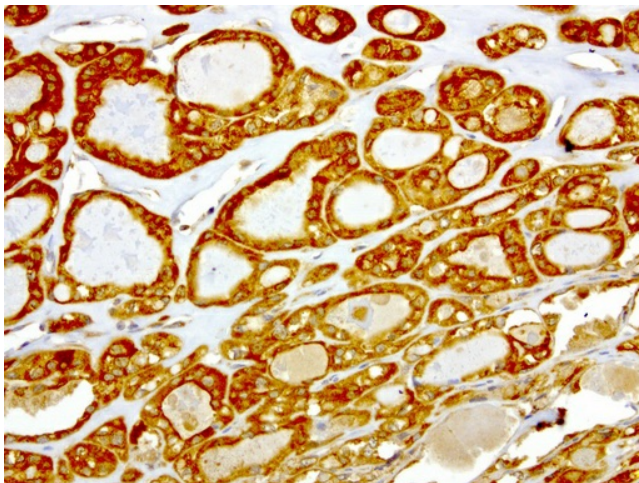
Immunohistochemical staining of paraffin-embedded human lymphoma using anti-NME1 clone UMAB94 mouse monoclonal antibody ([UM800025]) at 1:8000 with Polink2 Broad HRP DAB detection kit; heat-induced epitope retrieval with GBI ACCEL pH8.7 HIER buffer using pressure chamber for 3 minutes at 110C. Cytoplasmic staining is very strong in the tumor cells.



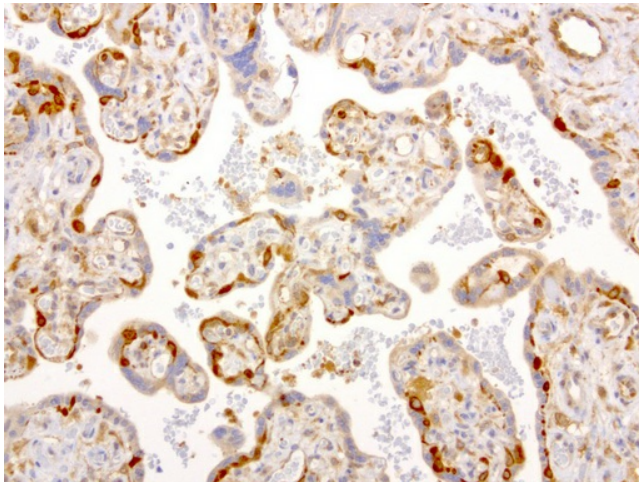
Immunohistochemical staining of paraffin-embedded human normal adjacent endometrium using anti-NME1 clone UMAB94 mouse monoclonal antibody ([UM800025]) at 1:8000 with Polink2 Broad HRP DAB detection kit; heat-induced epitope retrieval with GBI ACCEL pH8.7 HIER buffer using pressure chamber for 3 minutes at 110C. Cytoplasmic staining is very strong in the glandular epithelial cells and weaker stain was seen in the stromal cells.



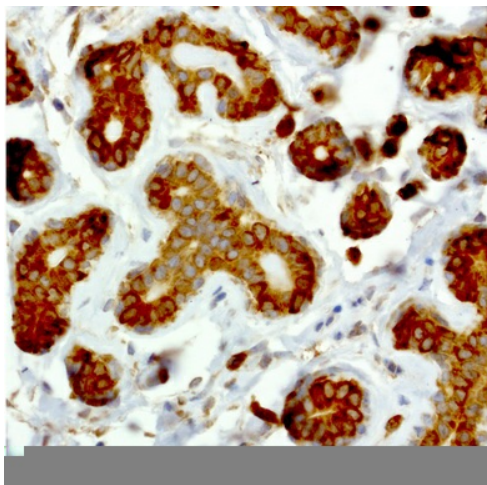
Immunohistochemical staining of paraffin-embedded human ovarian carcinoma using anti-NME1 clone UMAB94 mouse monoclonal antibody ([UM800025]) at 1:8000 with Polink2 Broad HRP DAB detection kit; heat-induced epitope retrieval with GBI ACCEL pH8.7 HIER buffer using pressure chamber for 3 minutes at 110C. Cytoplasmic staining is very strong in the tumor cells.



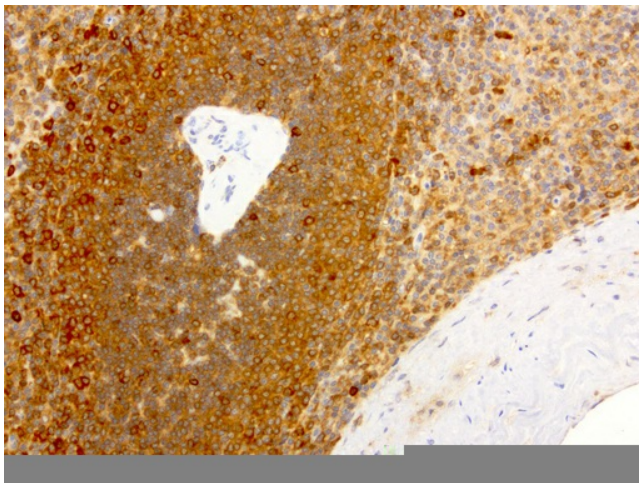
Immunohistochemical staining of paraffin-embedded human thyroid cancer using anti-NME1 clone UMAB94 mouse monoclonal antibody ([UM800025]) at 1:8000 with Polink2 Broad HRP DAB detection kit; heat-induced epitope retrieval with GBI ACCEL pH8.7 HIER buffer using pressure chamber for 3 minutes at 110C. Cytoplasmic staining is very strong in the tumor cells.



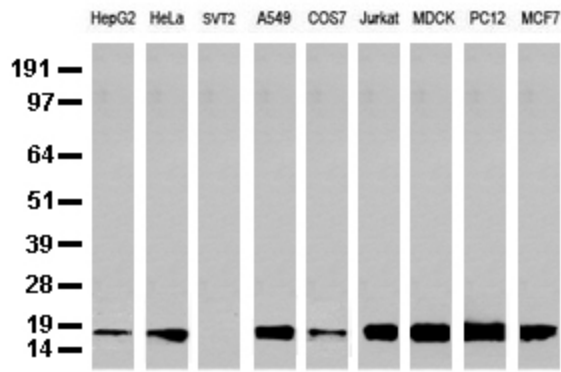
Immunohistochemical staining of paraffin-embedded human placenta using anti-NME1 clone UMAB94 mouse monoclonal antibody ([UM800025]) at 1:4000 with Polink2 Broad HRP DAB detection kit; heat-induced epitope retrieval with GBI ACCEL pH8.7 HIER buffer using pressure chamber for 3 minutes at 110C. Cytoplasmic staining is very strong in the stromal cells but weak to no staining seen in the trophoblast cell.



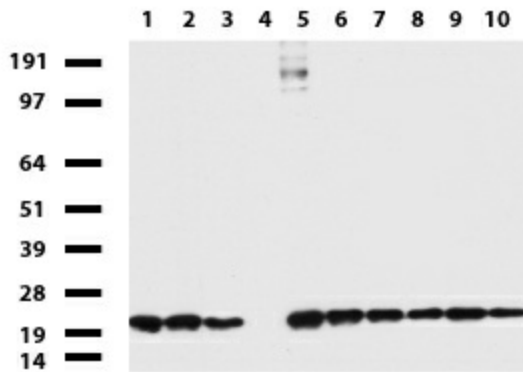
Immunohistochemical staining of paraffin-embedded human normal adjacent breast ducts using anti-NME1 clone UMAB94 mouse monoclonal antibody ([UM800025]) at 1:4000 with Polink2 Broad HRP DAB detection kit; heat-induced epitope retrieval with GBI ACCEL pH8.7 HIER buffer using pressure chamber for 3 minutes at 110C. Cytoplasmic staining is very strong in the breast epithelial cells.



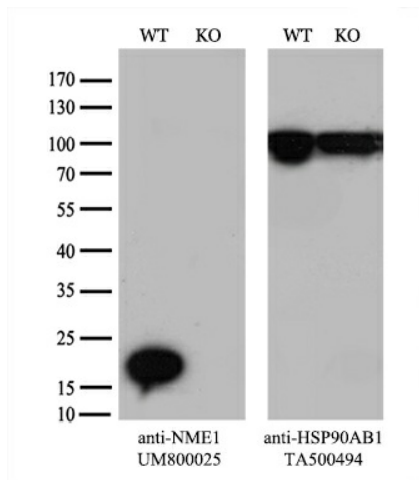
Immunohistochemical staining of paraffin-embedded human spleen using anti-NME1 clone UMAB94 mouse monoclonal antibody ([UM800025]) at 1:4000 with Polink2 Broad HRP DAB detection kit; heat-induced epitope retrieval with GBI ACCEL pH8.7 HIER buffer using pressure chamber for 3 minutes at 110C. Cytoplasmic staining is very strong in both the red and white pulp of the spleen.



Western blot analysis of extracts (35ug) from 9 different cell lines by using anti-NME1 monoclonal antibody (Clone UMAB94).



Western blot of human tissue lysates (15ug) from 10 different tissues (1: Testis, 2: Omentum, 3: Uterus, 4: Breast, 5: Brain, 6: Liver, 7: Ovary, 8: Thyroid, 9: Colon, 10: Spleen). Dilution: 1:500.



Equivalent amounts of cell lysates (10 ug per lane) of wild-type 293T cells (WT, Cat# LC810293T) and NME1-Knockout 293T cells (KO, Cat# LC840085) were separated by SDS-PAGE and immunoblotted with anti-NME1 monoclonal antibody [UM800025] (1:500). Then the blotted membrane was stripped and reprobed with anti-HSP90 antibody as a loading control.



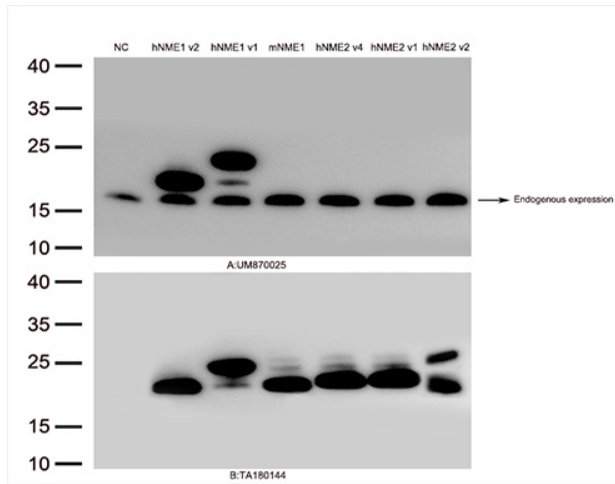


Figure A, Western blot analysis of overexpressed lysates(15ug per lane) from HEK293T cells transfected with empty plasmid ([PS100001], NC), human NME1 v2 plasmid ([RC201731], hNME1 v2), human NME1 v1 plasmid ([RC220517], hNME1 v1), mouse NME1 plasmid ([MR201104], mNME1), human NME2 v4 plasmid ([RC200680], hNME2 v4), human NME2 v1 plasmid ([RC219564], hNME2 v1), human NME2 v2 plasmid ([RC223639], hNME2 v2), using anti-NME1 antibody [UM870025] (1:500). Figure B, Western blot analysis of the same samples as figure A with anti-DDK antibody ([TA180144], 1:1000)

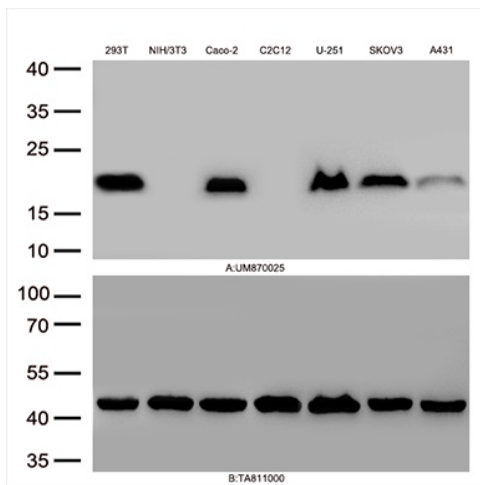
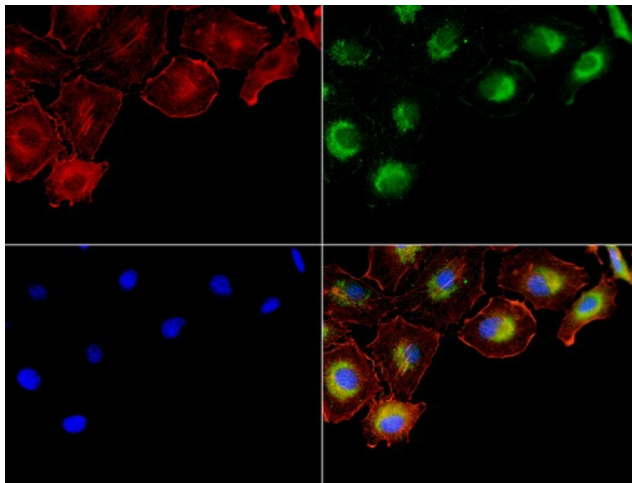
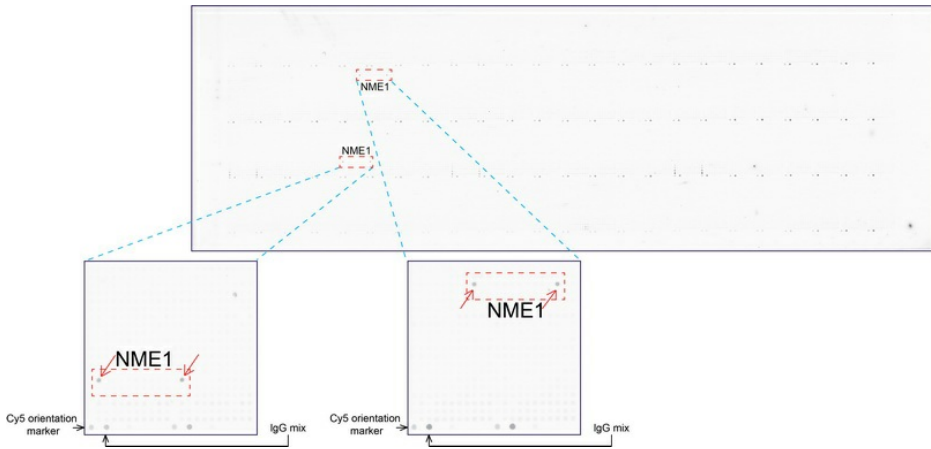


Figure A, Western blot analysis of extracts (50ug) from 7 cell lines lysates by using anti-NME1 antibody. ([UM870025], 1:500). Figure B, Western blot analysis of the same samples as figure A with anti-beta Actin antibody ([TA811000], 1:500)



Immunofluorescent staining of A549 cells using NME1 mouse monoclonal antibody ([UM800025], green). Actin filaments were labeled with TRITC-phalloidin (red), and nuclear with DAPI (blue). The three-color overlay image is located at the bottom-right corner.



OriGene overexpression protein microarray chip was immunostained with UltraMAB anti-NME1 mouse monoclonal antibody ([UM800025]). The positive reactive proteins are highlighted with two red arrows in the enlarged subarray. All the positive controls spotted in this subarray are also labeled for clarification.