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Metadherin Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1332a

Product Information

Application	WB, IHC, FC, E
Primary Accession	Q86UE4
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	2F11C3
Isotype	IgG1
Calculated MW	63837
Description	Metadherin (Metastasis adhesion protein), also known as MTDH, LYsine-RIch CEACAM1 co-isolated (LYRIC), is a novel protein that localizes with the tight junction proteins ZO-1 and occludin in polarized epithelial cells. At the tight junction, it acts not as a structural component, but is rather recruited during the maturation of the tight junction complex. Metadherin is overexpressed in breast cancer tissue and breast tumor xenografts, while much lower levels are expressed in normal breast tissue. Metadherin binds to lung vasculature, one of the four common sites of breast cancer metastasis, through a C-terminal segment in the extracellular domain; blocking this lung-homing domain with antibodies or inhibiting metadherin with siRNA has been reported to inhibit breast cancer metastasis.
Immunogen	Purified recombinant fragment of human Metadherin expressed in E. Coli.
Formulation	Antibody are purified by protein G affinity chromatography. Liquid in PBS containing 50% glycerol and 0.03% sodium azide.

Additional Information

Gene ID	92140
Other Names	Protein LYRIC, 3D3/LYRIC, Astrocyte elevated gene-1 protein, AEG-1, Lysine-rich CEACAM1 co-isolated protein, Metadherin, Metastasis adhesion protein, MTDH, AEG1, LYRIC
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 E~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Metadherin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MTDH
Synonyms	AEG1, LYRIC
Function	Down-regulates SLC1A2/EAAT2 promoter activity when expressed ectopically. Activates the nuclear factor kappa-B (NF-kappa-B) transcription factor. Promotes anchorage-independent growth of immortalized melanocytes and astrocytes which is a key component in tumor cell expansion. Promotes lung metastasis and also has an effect on bone and brain metastasis, possibly by enhancing the seeding of tumor cells to the target organ endothelium. Induces chemoresistance.
Cellular Location	Endoplasmic reticulum membrane; Single-pass membrane protein. Nucleus membrane; Single-pass membrane protein. Cell junction, tight junction Nucleus, nucleolus. Cytoplasm, perinuclear region Note=In epithelial cells, recruited to tight junctions (TJ) during the maturation of the TJ complexes. A nucleolar staining may be due to nuclear targeting of an isoform lacking the transmembrane domain (By similarity). TNF causes translocation from the cytoplasm to the nucleus.
Tissue Location	Widely expressed with highest levels in muscle- dominating organs such as skeletal muscle, heart, tongue and small intestine and in endocrine glands such as thyroid and adrenal gland Overexpressed in various cancers including breast, brain, prostate, melanoma and glioblastoma multiforme.

References

1. Cancer Cell. 2004 Apr;5(4):365-74. 2. Exp Cell Res. 2004 Oct 15;300(1):134-48. 3. Cancer Cell. 2009 Jan 6;15(1):9-20.

Images

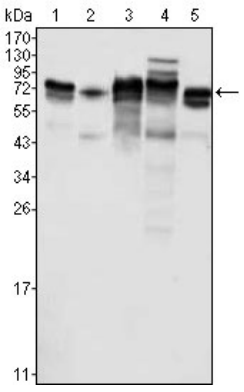
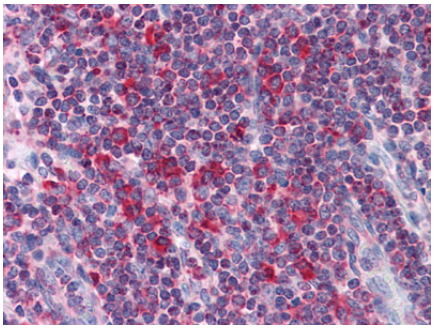


Figure 1: Western blot analysis using Metadherin mouse mAb against K562 (1), SKBR-3 (2), T47D (3), Hela (4) and MCF-7 (5) cell lysate.

Figure 2: Immunohistochemical analysis of paraffin-embedded human Liver tissues using Metadherin mouse mAb



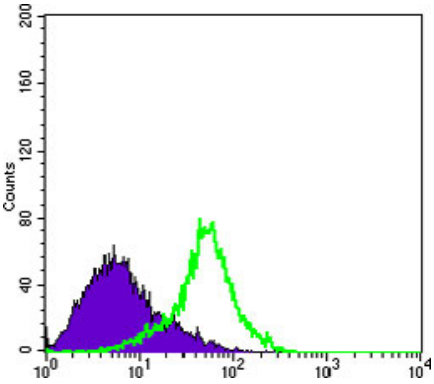


Figure 3: Flow cytometric analysis of Hela cells using Metadherin mouse mAb (green) and negative control (purple).

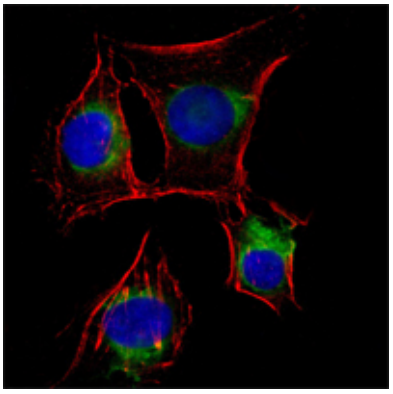


Figure 2:Immunofluorescence analysis of EC cells using NGFR mouse mAb (green). Red: Actin filaments have been labeled with DY-554 phalloidin. Blue: DRAQ5 fluorescent DNA dye.

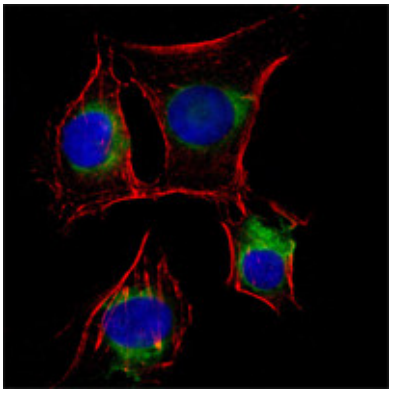


Figure 2:Immunofluorescence analysis of EC cells using anti-NGFR mAb (green). Red: Actin filaments have been labeled with DY-554 phalloidin. Blue: DRAQ5 fluorescent DNA dye.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.