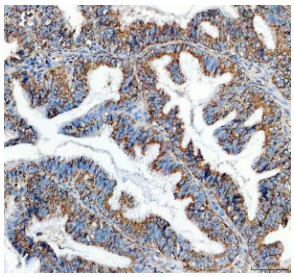
Metadherin Antibody / MTDH Antibody (R31751)

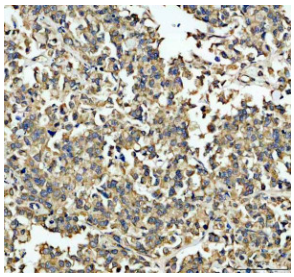
Catalog No.	Formulation	Size
R31751	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

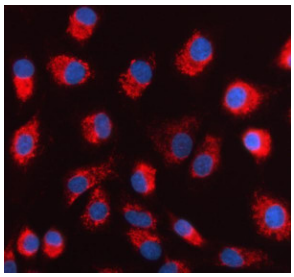
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
Gene ID	92140
Localization	Nuclear, cytoplasmic
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Immunofluorescence: 5ug/l Immunoprecipitation: 2ug per 500ug of lysate Flow cytometry: 1-3ug/million cells
Limitations	This Metadherin Antibody / MTDH Antibody is available for research use only.



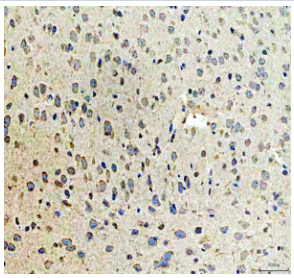
Metadherin Antibody Human Endometrial Cancer IHC. Immunohistochemical staining of FFPE human endometrial cancer tissue using Metadherin antibody demonstrated strong cytoplasmic and membranous staining in malignant epithelial cells, consistent with the reported overexpression of MTDH in numerous solid tumors. Heat-induced epitope retrieval was performed in pH 8 EDTA buffer prior to staining, and the primary antibody was applied at 2 ug/ml. This Metadherin Antibody, also called an MTDH Antibody, is useful for investigating tumor progression, metastasis, oncogenic signaling, chemoresistance, and cancer biology.



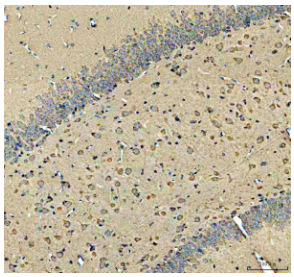
Metadherin Antibody Human Stomach Cancer IHC. Immunohistochemical staining of FFPE human stomach cancer tissue using Metadherin antibody demonstrated predominantly cytoplasmic staining in malignant epithelial cells, consistent with the elevated expression of MTDH reported in gastric carcinoma and other aggressive solid tumors. Heat-induced epitope retrieval was performed in pH 8 EDTA buffer prior to staining, and the primary antibody was applied at 2 ug/ml. This Metadherin Antibody, also called an MTDH Antibody, is useful for investigating tumor progression, metastasis, oncogenic signaling, chemoresistance, and cancer biology.



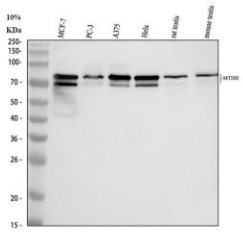
Metadherin Antibody Human Lung Cancer Cell IF. Immunofluorescent staining of A549 cells using Metadherin antibody demonstrated predominantly cytoplasmic fluorescence with a fine punctate distribution, consistent with the reported intracellular localization of MTDH. Cells were treated with enzyme antigen retrieval reagent for 15 minutes, blocked with 10% goat serum, and incubated with the primary antibody (5 ug/ml) overnight at 4Â°C. Cy3-conjugated goat anti-rabbit IgG was used as the secondary antibody, and nuclei were counterstained with DAPI (blue). This Metadherin Antibody, also called an MTDH Antibody, is useful for investigating tumor progression, metastasis, oncogenic signaling, chemoresistance, and cancer biology.



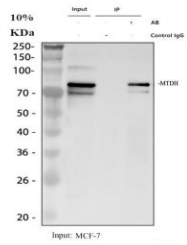
Metadherin Antibody Mouse Brain IHC. Immunohistochemical staining of FFPE mouse brain tissue using Metadherin antibody demonstrated predominantly cytoplasmic staining in neurons, consistent with the physiological expression of MTDH in the central nervous system. Heat-induced epitope retrieval was performed in pH 8 EDTA buffer prior to staining, and the primary antibody was applied at 2 ug/ml. This Metadherin Antibody, also called an MTDH Antibody, is useful for investigating neurobiology, oncogenic signaling, inflammation, and cancer biology.



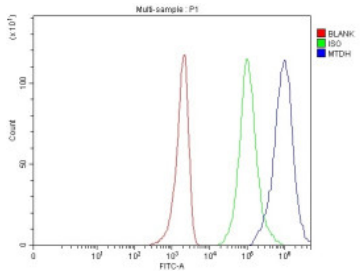
Metadherin Antibody Rat Brain IHC. Immunohistochemical staining of FFPE rat brain tissue using Metadherin antibody demonstrated predominantly cytoplasmic staining in neurons throughout the cerebral cortex and hippocampal region, consistent with the normal expression of MTDH in the central nervous system. Heat-induced epitope retrieval was performed in pH 8 EDTA buffer prior to staining, and the primary antibody was applied at 2 ug/ml. This Metadherin Antibody, also called an MTDH Antibody, is useful for investigating neurobiology, oncogenic signaling, inflammation, and cancer biology.



Metadherin Antibody Human, Mouse and Rat WB. Western blot testing of human MCF-7 (lane 1), PC-3 (lane 2), A375 (lane 3), and HeLa (lane 4) cell lysates together with rat testis (lane 5) and mouse testis (lane 6) lysates using Metadherin antibody detected immunoreactive bands at approximately 70-75 kDa. Although the predicted molecular weight of MTDH is approximately 64 kDa, the protein is frequently observed as a higher-migrating doublet due to post-translational modifications, including phosphorylation and differential glycosylation. This Metadherin Antibody, also called an MTDH Antibody, is useful for investigating tumor progression, metastasis, oncogenic signaling, chemoresistance, and cancer biology.



Metadherin Antibody Human Breast Cancer Cell IP. Immunoprecipitation of MTDH from human MCF-7 cell lysate using Metadherin antibody followed by Western blot analysis demonstrated efficient enrichment of the characteristic 70-75 kDa MTDH doublet. Lane 1 shows the input lysate, lane 2 is the rabbit IgG negative control, and lane 3 contains the immunoprecipitated MTDH complex obtained using 2 ug of antibody from 500 ug of lysate. The observed doublet is consistent with the known post-translationally modified forms of MTDH, which commonly migrate above the predicted molecular weight of approximately 64 kDa. This Metadherin Antibody, also called an MTDH Antibody, is useful for investigating protein interactions, tumor progression, metastasis, oncogenic signaling, and cancer biology.



Metadherin Antibody Human Breast Cancer Cell FACS. Flow cytometry analysis of fixed and permeabilized human MCF-7 cells using Metadherin antibody demonstrated a clear rightward shift of the stained cell population (blue) relative to the isotype control (green), indicating specific intracellular detection of MTDH. Cells without primary and secondary antibodies served as the blank control (red), and cells were blocked with normal goat serum prior to staining. This Metadherin Antibody, also called an MTDH Antibody, is useful for investigating tumor progression, metastasis, oncogenic signaling, chemoresistance, and cancer biology.

Description

Metadherin Antibody / MTDH Antibody recognizes metadherin (MTDH), also known as astrocyte elevated gene-1 (AEG-1) and LYRIC, a multifunctional protein that regulates tumor progression, metastasis, cell survival, and inflammatory signaling. MTDH is broadly expressed in normal tissues but is frequently overexpressed in numerous malignancies, including breast, colorectal, lung, liver, prostate, ovarian, and brain cancers. Elevated metadherin expression has been consistently associated with aggressive tumor behavior, metastatic dissemination, therapeutic resistance, and poor clinical outcome, making it an important biomarker and therapeutic target in oncology.

MTDH participates in multiple signaling pathways that regulate proliferation, apoptosis, epithelial-mesenchymal transition, angiogenesis, invasion, and immune responses. It interacts with components of the nuclear factor kappa B, phosphoinositide 3-kinase/AKT, Wnt/beta-catenin, mitogen-activated protein kinase, and signal transducer and activator of transcription pathways, coordinating transcriptional programs that promote tumor cell survival and metastatic progression. Metadherin also contributes to chemoresistance by enhancing DNA damage repair, suppressing apoptosis, and supporting cancer stem cell maintenance, making it an active focus of translational cancer research.

Beyond oncology, MTDH has important functions in neurobiology, antiviral immunity, inflammation, and tissue homeostasis. Originally identified as an astrocyte-induced gene, metadherin is now recognized as a regulator of interactions between tumor cells and the surrounding microenvironment, including extracellular matrix remodeling, endothelial activation, and immune cell recruitment. Additional studies have implicated MTDH in RNA metabolism, stress responses, and intracellular trafficking, highlighting its diverse biological functions across multiple tissues.

Because of its central role in tumor progression and multiple oncogenic signaling pathways, MTDH continues to be investigated as both a prognostic biomarker and a potential therapeutic target. A Metadherin Antibody is a valuable research tool for investigating MTDH, tumor progression, metastasis, oncogenic signaling, chemoresistance, and cancer biology.

Explore additional reagents for studies of tumor progression, metastasis, and oncogenic signaling on our Cancer Marker Antibodies page.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the Metadherin Antibody / MTDH

Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Human partial recombinant protein (AA 101-270) was used as the immunogen for this Metadherin Antibody.

Storage

After reconstitution, the Metadherin Antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Metadherin antibody, MTDH antibody, Astrocyte Elevated Gene-1 antibody, AEG-1 antibody, LYRIC antibody

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