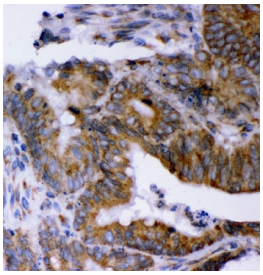
AEG-1 Antibody / Astrocyte Elevated Gene-1 Antibody [clone 2E5G3] (RQ7375)

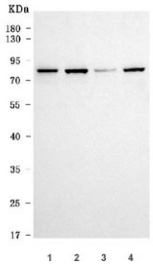
Catalog No.	Formulation	Size
RQ7375	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

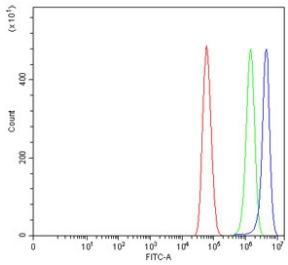
Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b
Clone Name	2E5G3
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q86UE4
Localization	Nuclear, cytoplasmic
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Flow cytometry: 1-3ug/million cells
Limitations	This AEG-1 Antibody / Astrocyte Elevated Gene-1 Antibody is available for research use only.



AEG-1 Antibody Human Colorectal Adenocarcinoma IHC. Immunohistochemical staining of FFPE human colorectal adenocarcinoma tissue using AEG-1 antibody demonstrated strong cytoplasmic and membranous staining in malignant epithelial cells, consistent with the elevated expression of astrocyte elevated gene-1 reported in colorectal cancer. Heat-induced epitope retrieval was performed in pH 8 EDTA buffer prior to staining, and the primary antibody was applied following a 20-minute retrieval protocol. This AEG-1 Antibody, also called an Astrocyte Elevated Gene-1 Antibody, is useful for investigating tumor progression, metastasis, oncogenic signaling, chemoresistance, and cancer biology.



AEG-1 Antibody Human Cancer Cell WB. Western blot testing of human U-87 MG (lane 1), HeLa (lane 2), PC-3 (lane 3), and HepG2 (lane 4) cell lysates using AEG-1 antibody detected a prominent band at approximately 70-80 kDa, consistent with the expected migration of astrocyte elevated gene-1. MTDH is commonly observed above its predicted molecular weight due to post-translational modifications, including phosphorylation and glycosylation, and may appear as a closely migrating doublet in some cell types. This AEG-1 Antibody, also called an Astrocyte Elevated Gene-1 Antibody, is useful for investigating tumor progression, metastasis, oncogenic signaling, chemoresistance, and cancer biology.



AEG-1 Antibody Human Glioblastoma Cell FACS. Flow cytometry analysis of fixed and permeabilized human U-87 MG cells using AEG-1 antibody demonstrated a clear rightward shift of the stained cell population (blue) relative to the isotype control (green), indicating specific intracellular detection of astrocyte elevated gene-1. Cells without primary and secondary antibodies served as the blank control (red), and cells were blocked with goat serum prior to staining. This AEG-1 Antibody, also called an Astrocyte Elevated Gene-1 Antibody, is useful for investigating tumor progression, metastasis, oncogenic signaling, chemoresistance, and cancer biology.

Description

AEG-1 Antibody / Astrocyte Elevated Gene-1 Antibody recognizes astrocyte elevated gene-1 (AEG-1), also known as metadherin (MTDH) and LYRIC, a multifunctional protein that regulates tumor progression, metastasis, cell survival, and inflammatory signaling. Originally identified as a gene induced in astrocytes by human immunodeficiency virus and tumor necrosis factor alpha, AEG-1 has since emerged as an important mediator of oncogenic signaling and is frequently overexpressed in a wide range of solid tumors, including breast, liver, lung, colorectal, gastric, prostate, ovarian, and brain cancers. Elevated AEG-1 expression is consistently associated with poor prognosis, increased metastatic potential, and resistance to chemotherapy.

AEG-1 participates in numerous signaling pathways that regulate proliferation, apoptosis, epithelial-mesenchymal transition, angiogenesis, invasion, and immune responses. It modulates the activity of nuclear factor kappa B, phosphoinositide 3-kinase/AKT, Wnt/beta-catenin, mitogen-activated protein kinase, and other oncogenic pathways while promoting cancer cell survival and metastatic dissemination. AEG-1 also contributes to chemoresistance by enhancing DNA repair mechanisms, suppressing apoptosis, and maintaining cancer stem cell characteristics, making it an attractive target for translational cancer research.

In addition to its role in cancer, AEG-1 contributes to neurobiology, inflammation, antiviral responses, and regulation of the tumor microenvironment. The protein influences interactions between tumor cells and surrounding stromal and immune cells while participating in RNA metabolism, intracellular trafficking, and cellular stress responses. These diverse biological functions continue to expand interest in AEG-1 as both a biomarker and a potential therapeutic target across multiple disease areas.

Clone 2E5G3 is a mouse monoclonal antibody developed for specific detection of AEG-1 in research applications. Its monoclonal design provides consistent recognition of the target protein for studies of tumor progression, metastasis, oncogenic signaling, chemoresistance, and neurobiology. An AEG-1 Antibody is a valuable research tool for investigating astrocyte elevated gene-1, MTDH, cancer progression, metastasis, and oncogenic signaling.

For a broader overview of MTDH biology, oncogenic signaling, and metastasis, see our Metadherin Antibody / MTDH Antibody page.

Application Notes

Optimal dilution of the AEG-1 Antibody / Astrocyte Elevated Gene-1 Antibody should be determined by the researcher.

Immunogen

Recombinant human protein (amino acids D101-Q270) was used as the immunogen for the AEG-1 antibody.

Storage

After reconstitution, the AEG-1 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

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

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