FAM162A Antibody / Protein FAM162A Antibody (FY13634)

Catalog No.	Formulation	Size
FY13634	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q96A26
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Immunofluorescence: 5ug/ml Immunoprecipitation: 2ug per 500ug of lysate ELISA: 0.1-0.5 ug/ml
Limitations	Intended solely for research purposes, this FAM162A Antibody / Protein FAM162A Antibody is not for clinical use.

FAM162A Antibody by IF in A431 cells. Immunofluorescence staining of A431 cells using Protein FAM162A Antibody shows green cytoplasmic and punctate perinuclear fluorescence surrounding DAPI-stained blue nuclei. The observed distribution is compatible with reported mitochondrial and cytosolic association, but no organelle-specific colocalization marker was included. Cells were incubated with 5 ug/mL primary antibody overnight at 4oC and detected with a fluorescent anti-rabbit secondary antibody.

FAM162A Antibody by IHC in human lung carcinoma. Immunohistochemistry of paraffin-embedded human lung carcinoma using Protein FAM162A Antibody shows brown DAB staining in carcinoma cells and glandular structures, with blue hematoxylin nuclear counterstaining. EDTA buffer at pH 8.0 was used for antigen retrieval, followed by overnight primary antibody incubation at 2 ug/mL and HRP-based detection.

FAM162A Antibody by IHC in human prostate carcinoma. Immunohistochemistry of paraffin-embedded human prostate carcinoma using Protein FAM162A Antibody shows brown cytoplasmic staining in glandular epithelial structures with blue nuclear counterstaining. Heat-mediated EDTA antigen retrieval preceded incubation with 2 ug/mL primary antibody overnight at 4oC. Immunoreactivity was visualized using HRP and DAB chromogen.

FAM162A Antibody by IP in RT4 cells. Immunoprecipitation of FAM162A from RT4 whole-cell lysate using Protein FAM162A Antibody was evaluated by Western blot. Lane 1 contains 30 ug input lysate, lane 2 the rabbit IgG control precipitate, and lane 3 the specific antibody precipitate prepared with 2 ug antibody and 500 ug lysate. A band consistent with the expected 17 kDa FAM162A protein is detected in input and specific immunoprecipitate. The higher signal around 50 kDa corresponds to immunoglobulin heavy chain.

FAM162A Antibody by WB in human HepG2 (lane 1), RT4 (lane 2), U-87MG (lane 3), and PC-3 (lane 4) whole-cell lysates. Western blot analysis using Protein FAM162A Antibody detects an immunoreactive band consistent with the expected molecular weight of approximately 17 kDa. Samples were prepared under reducing conditions, with 30 ug of total protein per lane, and resolved by 12% SDS-PAGE. The lanes contain human HepG2 (lane 1), RT4 (lane 2), U-87MG (lane 3), and PC-3 (lane 4) whole-cell lysates. Proteins were transferred to nitrocellulose, blocked with 5% nonfat milk, and incubated with primary antibody at 0.5 ug/mL overnight at 4oC. HRP-conjugated secondary antibody and chemiluminescence were used for detection.

Description

FAM162A Antibody / Protein FAM162A Antibody recognizes a membrane-associated protein that has been implicated in cellular responses to oxygen deprivation and stress-related cell death. FAM162A, also called HGTD-P, was identified as a hypoxia-responsive gene and has been studied in connection with mitochondrial dysfunction and apoptosis. Oxygen availability strongly influences mitochondrial energy metabolism, and prolonged hypoxia can shift cellular signaling from adaptive survival responses toward pathways that compromise membrane integrity and cell viability.

Hypoxia-inducible transcription factors coordinate many of the changes that allow cells to cope with reduced oxygen. Their target genes influence metabolism, angiogenic signaling, and survival. FAM162A has been described as a hypoxia-inducible protein in experimental systems, making it of interest in efforts to distinguish adaptive gene-expression changes from responses that contribute to cell injury. The degree to which its regulation is shared across cell types and stress conditions remains an important question.

Studies of FAM162A have linked increased expression to mitochondrial alterations and activation of apoptotic processes. Mitochondria play a central role in intrinsic apoptosis through regulation of outer membrane permeabilization and release of factors that activate downstream caspases. Experimental overexpression findings suggest that FAM162A can influence this pathway, but they do not necessarily establish its physiological activity at endogenous abundance. Determining its direct interaction partners and the sequence of events connecting it to mitochondrial injury remains essential.

The balance between adaptation and cell death during hypoxia has implications for ischemic tissue damage, tumor microenvironments, and other settings in which oxygen delivery becomes limiting. Proteins induced during oxygen stress may participate in either protective or damaging processes depending on the intensity and duration of the insult. FAM162A's reported activities place it within this complex regulatory landscape.

NSJ Bioreagents offers this FAM162A Antibody to help investigate the molecular links between hypoxia-responsive gene expression and mitochondrial cell-death pathways. More detailed characterization of this protein may help clarify when oxygen deprivation triggers compensatory responses and when mitochondrial stress progresses toward irreversible cellular injury.

Explore related research targets in our Cell Biology Antibodies collection.

Application Notes

Users should optimize the working dilution of the FAM162A Antibody / Protein FAM162A Antibody for their specific experimental setup.

Immunogen

The FAM162A Antibody was generated using e. coli-derived human FAM162A recombinant protein (amino acids E19-E154).

Storage

Following reconstitution, the FAM162A Antibody can be kept at 4oC for one month. Aliquot for extended storage at -20oC for up to six months, avoiding repeated freezing and thawing.

Alternate Names

FAM162A antibody, Protein FAM162A antibody, family with sequence similarity 162 member A antibody, C3orf28 antibody, DC16 antibody, E2IG5 antibody, E2-induced gene 5 protein antibody, FWP001 antibody

Copyright © NSJ Bioreagents. All rights reserved.