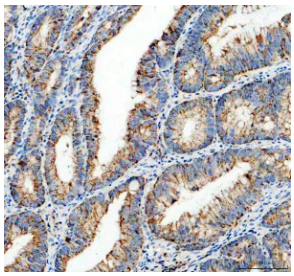
MRPS35 Antibody / Mitochondrial Ribosomal Protein S35 Antibody (FY13500)

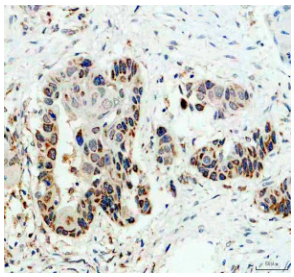
Catalog No.	Formulation	Size
FY13500	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

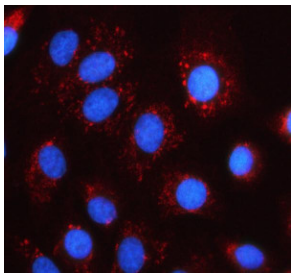
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen Affinity
Buffer	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4
UniProt	P82673
Applications	Western Blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Immunofluorescence: 5ug/ml Immunoprecipitation: 2ug per 500ug of lysate
Limitations	This MRPS35 Antibody / Mitochondrial Ribosomal Protein S35 Antibody is available for research use only.



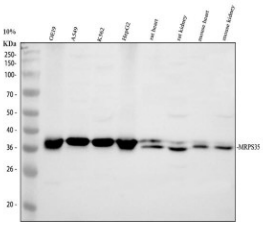
MRPS35 Antibody Human Colon Cancer IHC. Immunohistochemical staining of FFPE human colon cancer tissue shows MRPS35 expression following heat-induced epitope retrieval in pH8 EDTA buffer. Brown DAB staining is observed predominantly within the cytoplasm of tumor epithelial cells, consistent with the mitochondrial localization of mitochondrial ribosomal protein S35, while nuclei are counterstained blue with hematoxylin. The staining pattern supports expression of this mitochondrial translation factor in colorectal carcinoma tissue. This MRPS35 Antibody is suitable for studies of mitochondrial ribosomal protein S35, mitochondrial biology, and cancer-associated metabolic regulation.



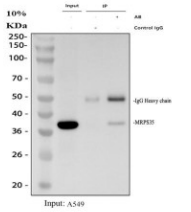
MRPS35 Antibody Human Lung Cancer IHC. Immunohistochemical staining of FFPE human lung cancer tissue demonstrates MRPS35 expression following heat-induced epitope retrieval in pH8 EDTA buffer. Brown DAB staining is observed predominantly within the cytoplasm of malignant epithelial cells, with variable staining intensity among tumor cells, while nuclei are counterstained blue with hematoxylin. The localization is consistent with the mitochondrial distribution of mitochondrial ribosomal protein S35. This MRPS35 Antibody is suitable for studies of mitochondrial ribosomal protein S35, mitochondrial translation, and metabolic adaptations associated with lung cancer.



MRPS35 Antibody A549 Cell IF. Immunofluorescent staining of A549 cells demonstrates MRPS35 expression after enzyme-mediated antigen retrieval and labeling with a Cy3-conjugated secondary antibody (red), while nuclei are counterstained with DAPI (blue). The signal displays a punctate cytoplasmic staining pattern that is consistent with the mitochondrial localization of mitochondrial ribosomal protein S35. This distribution reflects the role of MRPS35 as a component of the mitochondrial small ribosomal subunit involved in mitochondrial protein translation. This MRPS35 Antibody is suitable for studies of mitochondrial ribosomal protein S35, mitochondrial translation, and mitochondrial function in cultured cells.



MRPS35 Antibody Human, Rat and Mouse WB. Western blot demonstrates detection of MRPS35 in human OE19, A549, K562, and HepG2 cell lysates, as well as rat heart, rat kidney, mouse heart, and mouse kidney tissue lysates. A distinct immunoreactive band is observed at approximately 37 kDa, consistent with the predicted molecular weight of mitochondrial ribosomal protein S35. The broad detection across multiple human cell lines and rodent tissues indicates conserved expression of this mitochondrial ribosomal protein. This MRPS35 Antibody is suitable for studies of mitochondrial ribosomal protein S35, mitochondrial translation, and mitochondrial function across human, rat, and mouse samples.



MRPS35 Antibody A549 Cell IP. Immunoprecipitation of MRPS35 from A549 whole cell lysate using 2 ug of MRPS35 antibody followed by Western blot detection demonstrates specific enrichment of mitochondrial ribosomal protein S35. Lane 1 shows the input lysate with the expected ~37 kDa MRPS35 band, lane 2 is the rabbit IgG negative control, and lane 3 shows successful immunoprecipitation with a distinct ~37 kDa MRPS35 band together with the expected IgG heavy chain at approximately 50 kDa. This MRPS35 Antibody is suitable for immunoprecipitation and Western blot studies of mitochondrial ribosomal protein S35 and mitochondrial translation.

Description

MRPS35 Antibody recognizes mitochondrial ribosomal protein S35 (MRPS35), a nuclear-encoded component of the small 28S subunit of the mammalian mitochondrial ribosome. Following synthesis in the cytoplasm, MRPS35 is imported into mitochondria where it becomes part of the mitoribosome, the specialized ribonucleoprotein complex responsible for translating the 13 protein-coding genes encoded by mitochondrial DNA. These proteins are essential subunits of the oxidative phosphorylation system, making MRPS35 an important contributor to mitochondrial energy production and cellular metabolism. Unlike cytoplasmic ribosomes, mammalian mitoribosomes contain a relatively high protein-to-RNA ratio, reflecting their specialized adaptation for protein synthesis within the mitochondrial matrix.

MRPS35 is expressed in a wide variety of tissues because mitochondrial protein synthesis is required for virtually all eukaryotic cells. Expression is generally highest in metabolically active tissues such as heart, skeletal muscle, liver, kidney, and brain, where oxidative phosphorylation is critical for ATP generation. Alterations in mitochondrial ribosomal proteins, including MRPS35, can impair mitochondrial translation, resulting in defective respiratory chain assembly, reduced ATP production, and increased oxidative stress. Because mitochondrial dysfunction contributes to numerous

inherited mitochondrial disorders, neurodegenerative diseases, metabolic syndromes, and cancer, MRPS35 has become a valuable marker for studies investigating mitochondrial homeostasis and bioenergetics.

Research has also suggested that MRPS35 may participate in the cellular response to mitochondrial stress beyond its structural role in the mitoribosome. Changes in mitochondrial ribosome composition can influence mitochondrial quality control pathways, integrated stress responses, apoptosis, and metabolic adaptation. Investigators frequently examine MRPS35 alongside other mitochondrial ribosomal proteins and respiratory chain components to better understand how defects in mitochondrial translation contribute to disease progression and altered cellular physiology. As interest in mitochondrial biology continues to grow, MRPS35 serves as a useful target for studies of mitochondrial protein synthesis, organelle maintenance, and energy metabolism.

An MRPS35 Antibody is a valuable research tool for detecting mitochondrial ribosomal protein S35 expression in studies of mitochondrial translation, oxidative phosphorylation, mitochondrial dysfunction, neurobiology, metabolism, and cancer research.

Learn more about related targets by visiting our Mitochondrial Marker Antibodies page.

Application Notes

Optimal dilution of the MRPS35 Antibody / Mitochondrial Ribosomal Protein S35 Antibody should be determined by the researcher.

Immunogen

E.coli-derived human Mitochondrial Ribosomal Protein S35 recombinant protein (amino acids A2-L320) was used as the immunogen for the MRPS35 Antibody.

Storage

After reconstitution, the MRPS35 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

MRPS35 antibody, Mitochondrial Ribosomal Protein S35 antibody, MRP-S35 antibody, mS35 antibody

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