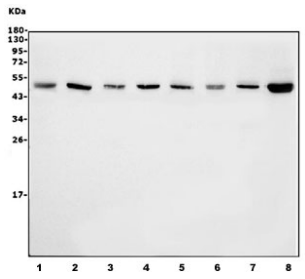
ETF1 Antibody / Eukaryotic Translation Termination Factor Antibody [clone 3E5.] (RQ6232)

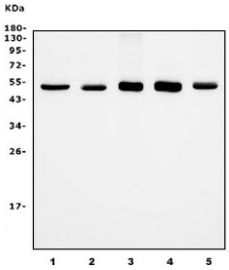
Catalog No.	Formulation	Size
RQ6232	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

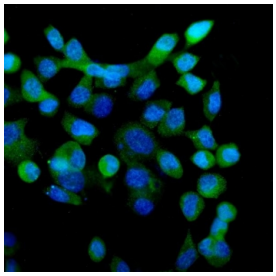
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b
Clone Name	3E5.
Purity	Affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P62495
Localization	Cytoplasmic
Applications	Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Immunofluorescence: 5ug/ml Flow cytometry: 1-3ug/million cells
Limitations	This ETF1 Antibody / Eukaryotic Translation Termination Factor Antibody is available for research use only.



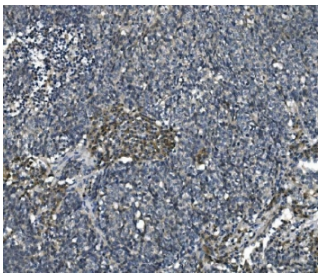
ETF1 Antibody Rat and Mouse WB. Western blot testing of rat liver (lane 1), testis (lane 2), kidney (lane 3), and PC-12 (lane 4), together with mouse liver (lane 5), testis (lane 6), kidney (lane 7), and RAW264.7 cell lysate (lane 8) using ETF1 Antibody / Eukaryotic Translation Termination Factor Antibody at 1 ug/ml. A specific band is detected at approximately 49 kDa in all samples, consistent with the predicted molecular weight of ETF1. This ETF1 Antibody, also called Eukaryotic Translation Termination Factor Antibody, is suitable for studies of translation termination, ribosome function, protein synthesis, and translational fidelity.



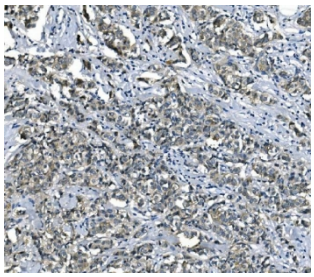
ETF1 Antibody Human Cell WB. Western blot testing of human HeLa (lane 1), Jurkat (lane 2), K562 (lane 3), Raji (lane 4), and HepG2 (lane 5) cell lysates using ETF1 Antibody / Eukaryotic Translation Termination Factor Antibody at 1 ug/ml. A specific band is detected at approximately 49 kDa in all samples, consistent with the predicted molecular weight of ETF1. This ETF1 Antibody, also called Eukaryotic Translation Termination Factor Antibody, is suitable for studies of translation termination, ribosome function, protein synthesis, and translational fidelity.



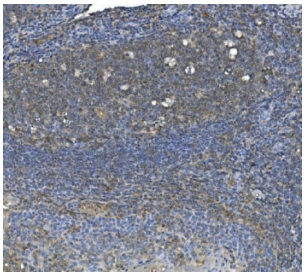
ETF1 Antibody Human A431 Cell IF. Immunofluorescent staining of FFPE human A431 cells using ETF1 Antibody / Eukaryotic Translation Termination Factor Antibody (green) with DAPI nuclear counterstain (blue). Heat-induced epitope retrieval was performed by steaming tissue sections in pH 6.0 citrate buffer for 20 minutes before staining. ETF1 displays predominantly cytoplasmic staining, consistent with its role as a translation termination factor associated with the ribosome during protein synthesis. This ETF1 Antibody, also called Eukaryotic Translation Termination Factor Antibody, is suitable for studies of translation termination, ribosome function, and translational regulation.



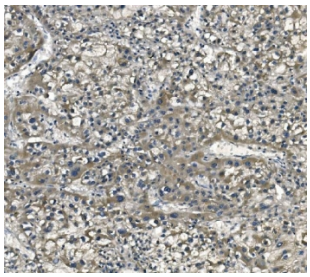
ETF1 Antibody Human Lung Cancer IHC. Immunohistochemical staining of FFPE human lung cancer tissue using ETF1 Antibody / Eukaryotic Translation Termination Factor Antibody. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 8.0 EDTA buffer for 20 minutes followed by cooling before staining. ETF1 exhibits predominantly cytoplasmic staining in tumor cells, consistent with its role as an essential translation termination factor that functions at the ribosome during protein synthesis. This ETF1 Antibody, also called Eukaryotic Translation Termination Factor Antibody, is suitable for investigating translation termination, ribosome function, and translational regulation.



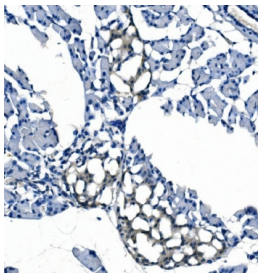
ETF1 Antibody Human Breast Cancer IHC. Immunohistochemical staining of FFPE human breast cancer tissue using ETF1 Antibody / Eukaryotic Translation Termination Factor Antibody. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 8.0 EDTA buffer for 20 minutes followed by cooling before staining. ETF1 shows predominantly cytoplasmic staining in tumor cells, consistent with its role as an essential translation termination factor that functions at the ribosome during protein synthesis. This ETF1 Antibody, also called Eukaryotic Translation Termination Factor Antibody, is suitable for investigating translation termination, ribosome function, and translational regulation.



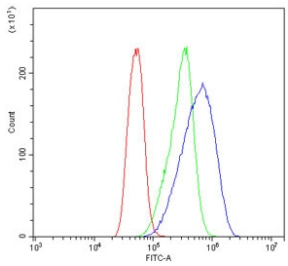
ETF1 Antibody Human Tonsil IHC. Immunohistochemical staining of FFPE human tonsil tissue using ETF1 Antibody / Eukaryotic Translation Termination Factor Antibody. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 8.0 EDTA buffer for 20 minutes followed by cooling before staining. ETF1 exhibits predominantly cytoplasmic staining in lymphoid cells, consistent with its ubiquitous expression and essential role in translation termination during protein synthesis. This ETF1 Antibody, also called Eukaryotic Translation Termination Factor Antibody, is suitable for investigating translation termination, ribosome function, and translational regulation.



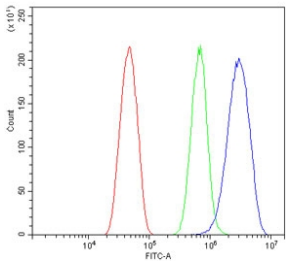
ETF1 Antibody Human Liver Cancer IHC. Immunohistochemical staining of FFPE human liver cancer tissue using ETF1 Antibody / Eukaryotic Translation Termination Factor Antibody. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 8.0 EDTA buffer for 20 minutes followed by cooling before staining. ETF1 shows predominantly cytoplasmic staining in tumor cells, consistent with its essential role as a translation termination factor that functions at the ribosome during protein synthesis. This ETF1 Antibody, also called Eukaryotic Translation Termination Factor Antibody, is suitable for investigating translation termination, ribosome function, and translational regulation.



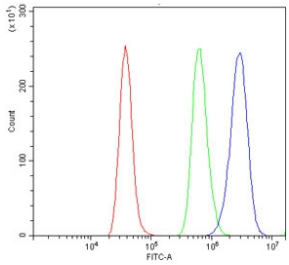
ETF1 Antibody Rat Pancreas IHC. Immunohistochemical staining of FFPE rat pancreas tissue using ETF1 Antibody / Eukaryotic Translation Termination Factor Antibody. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 8.0 EDTA buffer for 20 minutes followed by cooling before staining. ETF1 exhibits predominantly cytoplasmic staining in pancreatic epithelial cells, consistent with its ubiquitous expression and essential role as a translation termination factor that functions at the ribosome during protein synthesis. This ETF1 Antibody, also called Eukaryotic Translation Termination Factor Antibody, is suitable for investigating translation termination, ribosome function, and translational regulation.



ETF1 Antibody Human Caco-2 Cell FACS. Flow cytometry analysis of fixed and permeabilized human Caco-2 cells stained with ETF1 Antibody / Eukaryotic Translation Termination Factor Antibody (blue). Cells were blocked with goat serum and incubated with ETF1 Antibody at 1 ug/million cells, followed by a fluorescent secondary antibody. Unstained cells (red) and an isotype control (green) were included to assess background staining. The clear rightward shift of the ETF1-positive population demonstrates specific intracellular detection. This ETF1 Antibody, also called Eukaryotic Translation Termination Factor Antibody, is suitable for flow cytometric analysis of intracellular ETF1 expression.



ETF1 Antibody Mouse HEPA1-6 Cell FACS. Flow cytometry analysis of fixed and permeabilized mouse HEPA1-6 cells stained with ETF1 Antibody / Eukaryotic Translation Termination Factor Antibody (blue). Cells were blocked with goat serum and incubated with ETF1 Antibody at 1 ug/million cells, followed by a fluorescent secondary antibody. Unstained cells (red) and an isotype control (green) were included to assess background staining. The pronounced rightward shift of the ETF1-positive population demonstrates specific intracellular detection. This ETF1 Antibody, also called Eukaryotic Translation Termination Factor Antibody, is suitable for flow cytometric analysis of intracellular ETF1 expression.



ETF1 Antibody Rat RH35 Cell FACS. Flow cytometry analysis of fixed and permeabilized rat RH35 cells stained with ETF1 Antibody / Eukaryotic Translation Termination Factor Antibody (blue). Cells were blocked with goat serum and incubated with ETF1 Antibody at 1 ug/million cells, followed by a fluorescent secondary antibody. Unstained cells (red) and an isotype control (green) were included to assess background staining. The pronounced rightward shift of the ETF1-positive population demonstrates specific intracellular detection. This ETF1 Antibody, also called Eukaryotic Translation Termination Factor Antibody, is suitable for flow cytometric analysis of intracellular ETF1 expression.

Description

ETF1 Antibody / Eukaryotic Translation Termination Factor Antibody, clone 3E5, recognizes ETF1, the gene encoding eukaryotic release factor 1 (eRF1), the essential class I translation termination factor responsible for recognizing all three

stop codons during eukaryotic protein synthesis. ETF1 functions together with the GTPase eRF3 to terminate translation by promoting hydrolysis of the peptidyl-tRNA bond within the ribosome, releasing the completed polypeptide chain. Because ETF1 recognizes the UAA, UAG, and UGA stop codons, it serves as the universal translation release factor in eukaryotic cells and is indispensable for accurate protein synthesis and maintenance of translational fidelity.

ETF1 contains distinct functional domains that mediate stop codon recognition, interaction with the ribosomal decoding center, and peptide release. Following stop codon recognition, ETF1 cooperates with eRF3 to coordinate GTP hydrolysis and efficient translation termination before ribosome recycling begins. Beyond its canonical role, ETF1 also participates in mRNA quality control pathways, including nonsense-mediated decay, and helps prevent translational readthrough that could otherwise generate aberrant or extended proteins. Through these mechanisms, ETF1 plays a central role in maintaining proteome integrity and ensuring the fidelity of gene expression.

ETF1 is ubiquitously expressed because translation termination is required in virtually every cell. Altered ETF1 expression or activity has been associated with changes in translational accuracy, stress responses, viral protein synthesis, neurodegenerative disorders, and cancer. The protein has also become an important target for therapeutic strategies that promote stop codon readthrough to restore expression of functional proteins in certain inherited genetic diseases. As interest in translational regulation continues to expand, ETF1 remains a key molecule for understanding how protein synthesis is accurately completed and coordinated with cellular quality control mechanisms.

An ETF1 Antibody is a valuable tool for investigating translation termination, ribosome-associated protein complexes, and translational fidelity in cultured cells and tissue specimens. Researchers frequently use Eukaryotic Translation Termination Factor Antibody reagents to study protein synthesis, stop codon recognition, mRNA surveillance, ribosome biology, and mechanisms that regulate translation termination.

Explore our Cancer Marker Antibodies page for additional proteins involved in protein synthesis, translational regulation, and cancer progression.

Application Notes

Optimal dilution of the ETF1 Antibody / Eukaryotic Translation Termination Factor Antibody should be determined by the researcher.

Immunogen

A human recombinant partial protein (amino acids D9-K342) was used as the immunogen for the ETF1 antibody.

Storage

After reconstitution, the ETF1 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

ETF1 Antibody, Eukaryotic Translation Termination Factor 1 Antibody, Eukaryotic Translation Termination Factor Antibody, eRF1 Antibody, Eukaryotic Peptide Chain Release Factor 1 Antibody

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