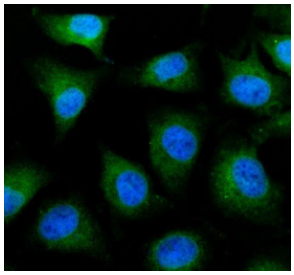
EEF1A1 Antibody / Elongation Factor 1 Alpha 1 Antibody (FY13480)

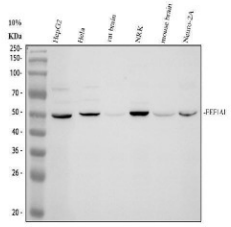
Catalog No.	Formulation	Size
FY13480	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P68104
Applications	Western blot: 0.5-1ug/ml ELISA: 0.1-0.5ug/ml Immunofluorescence: 5ug/ml
Limitations	This EEF1A1 Antibody / Elongation Factor 1 Alpha 1 Antibody is available for research use only.



EEF1A1 Antibody HeLa Cell IF. Immunofluorescent analysis of HeLa cells using EEF1A1 Antibody. Cells were subjected to enzyme-mediated antigen retrieval, blocked with goat serum, and incubated with EEF1A1 Antibody (5 ug/mL) overnight at 4Â°C. A Fluoro488-conjugated goat anti-rabbit secondary antibody was used to detect EEF1A1 (green), and nuclei were counterstained with DAPI (blue). Strong diffuse cytoplasmic fluorescence is observed with minimal nuclear staining, consistent with the expected localization of EEF1A1 as a cytosolic translation elongation factor. These results demonstrate that EEF1A1 Antibody, an Elongation Factor 1 Alpha 1 Antibody, specifically detects endogenous EEF1A1 in cultured human HeLa cells.



EEF1A1 Antibody Human, Rat and Mouse Cell WB. Western blot analysis of EEF1A1 Antibody using lysates from 1) human HepG2 cells, 2) human HeLa cells, 3) rat NRK cells, and 4) mouse Neuro-2a cells. Samples (30 ug/lane) were separated on a 10% SDS-PAGE gel under reducing conditions, transferred to a nitrocellulose membrane, and probed with EEF1A1 Antibody (0.5 ug/mL), followed by an HRP-conjugated secondary antibody and ECL detection. A specific band is detected at approximately 50 kDa in all four cell lines, consistent with the predicted molecular weight of EEF1A1. These results demonstrate that EEF1A1 Antibody, an Elongation Factor 1 Alpha 1 Antibody, specifically detects endogenous EEF1A1 across human, rat, and mouse cell lines.

Description

EEF1A1 Antibody recognizes Elongation Factor 1 Alpha 1 (EEF1A1), an abundant and highly conserved translation elongation factor that delivers aminoacyl-transfer RNAs to the ribosome during messenger RNA translation. Acting in a guanosine triphosphate-dependent manner, EEF1A1 ensures accurate decoding of messenger RNA by transporting charged transfer RNAs to the ribosomal A-site, making it indispensable for efficient protein synthesis. Because virtually every cell relies on continual translation, EEF1A1 is among the most highly expressed cytoplasmic proteins in mammalian cells. Consequently, EEF1A1 Antibody is widely used to investigate translational regulation, ribosome function, and cellular protein synthesis.

Beyond its canonical role in translation elongation, EEF1A1 participates in numerous non-translational cellular processes. It interacts with the actin cytoskeleton, contributes to cytoskeletal organization, regulates apoptosis, and has been implicated in protein quality control, signal transduction, nuclear transport, and responses to oxidative and endoplasmic reticulum stress. EEF1A1 also influences viral replication for several RNA and DNA viruses through interactions with viral proteins and nucleic acids. These diverse activities make EEF1A1 Antibody a valuable reagent for studies of cytoskeletal dynamics, stress signaling, host-pathogen interactions, and mechanisms that coordinate protein synthesis with broader cellular physiology.

Altered EEF1A1 expression has been associated with numerous human diseases, including breast, colorectal, lung, liver, ovarian, pancreatic, and prostate cancers, where dysregulated protein synthesis and enhanced translational activity support tumor growth and survival. EEF1A1 has also been investigated in neurodegenerative disorders, cardiovascular disease, metabolic dysfunction, and viral infection. Because of its widespread expression and multifunctional biology, researchers frequently employ EEF1A1 Antibody in Western blotting, immunohistochemistry, immunofluorescence, immunoprecipitation, and flow cytometry to evaluate protein expression, intracellular localization, and disease-associated changes across diverse tissues and experimental models.

NSJ Bioreagents provides EEF1A1 Antibody products that undergo validation for research applications to support reliable detection of this essential translation factor. Whether studying messenger RNA translation, ribosome biology, cytoskeletal organization, cellular stress responses, or cancer progression, a high-quality Elongation Factor 1 Alpha 1 Antibody enables accurate characterization of EEF1A1 expression and localization. As interest in translational control and multifunctional translation factors continues to expand, EEF1A1 Antibody remains an important tool for investigating the molecular mechanisms governing protein synthesis and cellular homeostasis.

Explore our Cell Biology Antibodies page to discover additional antibodies against translation factors, ribosomal proteins, RNA-binding proteins, and other regulators of protein synthesis that complement EEF1A1 Antibody research.

Application Notes

Optimal dilution of the EEF1A1 Antibody / Elongation Factor 1 Alpha 1 Antibody should be determined by the researcher.

Immunogen

E. coli-derived recombinant human Elongation Factor 1 Alpha 1 protein (amino acids D35-K460) was used as the immunogen for the EEF1A1 Antibody.

Storage

After reconstitution, the EEF1A1 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

EEF1A1 antibody, Elongation Factor 1 Alpha 1 antibody, eEF1A1 antibody, EF1A antibody, Eukaryotic Translation Elongation Factor 1 Alpha 1 antibody, Elongation Factor Tu antibody

Copyright © NSJ Bioreagents. All rights reserved.