

EIF5B Antibody / Eukaryotic translation initiation factor 5B Antibody (FY13567)

Catalog No.	Formulation	Size
FY13567	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

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Species Reactivity	Human, Mouse, Rat
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 Na ₂ HPO ₄ .
UniProt	O60841
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml Immunofluorescence : 5ug/ml Immunoprecipitation : 2ug per 500ug of lysate Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5 ug/ml
Limitations	The EIF5B Antibody / Eukaryotic translation initiation factor 5B Antibody is available for research use only.

EIF5B Antibody by IF in A549 cells. Immunofluorescence using Eukaryotic translation initiation factor 5B Antibody demonstrates widespread green cytoplasmic staining in A549 cells, surrounding nuclei counterstained blue with DAPI. This distribution is consistent with the cytoplasmic role of EIF5B in translation initiation. Following enzyme antigen retrieval for 15 minutes and blocking with 10% goat serum, cells were incubated with primary antibody at 5 ug/mL overnight at 4oC. Fluoro488-conjugated goat anti-rabbit IgG was applied at 1:500 for 30 minutes at 37oC.

EIF5B Antibody by IHC in human stomach carcinoma. Immunohistochemistry of paraffin-embedded human stomach carcinoma using Eukaryotic translation initiation factor 5B Antibody reveals strong brown cytoplasmic staining within carcinoma cell clusters. Sections underwent heat-mediated antigen retrieval in EDTA buffer at pH 8.0 and blocking with 10% goat serum. Primary antibody was applied at 2 ug/mL overnight at 40C, followed by HRP-conjugated secondary antibody and DAB chromogen. Hematoxylin counterstaining highlights tissue architecture and nuclei.

EIF5B Antibody by WB in human A549. Western blot analysis using Eukaryotic translation initiation factor 5B Antibody detects an immunoreactive band near 200 kDa in human A549 (lane 1); human HepG2 (lane 2); human Jurkat (lane 3); human K562 (lane 4); rat RH35 (lane 5); mouse NIH/3T3 (lane 6) whole-cell lysates. The calculated molecular weight is approximately 139 kDa. The band migrates well above the calculated mass, and the cause of the difference has not been established. Reduced lysates containing 30 ug protein per lane were resolved by 8% SDS-PAGE and transferred to nitrocellulose. Following blocking with 5% nonfat milk, the membrane was incubated with primary antibody at 0.5 ug/mL overnight at 40C and developed with an HRP-conjugated secondary antibody and chemiluminescence.

EIF5B Antibody by IHC in human stomach. Immunohistochemistry of paraffin-embedded human stomach using Eukaryotic translation initiation factor 5B Antibody reveals brown cytoplasmic staining in gastric glandular epithelium. Sections underwent heat-mediated antigen retrieval in EDTA buffer at pH 8.0 and blocking with 10% goat serum. Primary antibody was applied at 2 ug/mL overnight at 40C, followed by HRP-conjugated secondary antibody and DAB chromogen. Hematoxylin counterstaining highlights tissue architecture and nuclei.

EIF5B Antibody by IHC in mouse brain. Immunohistochemistry of paraffin-embedded mouse brain using Eukaryotic translation initiation factor 5B Antibody reveals light brown cytoplasmic immunoreactivity in neuronal cell bodies. Sections underwent heat-mediated antigen retrieval in EDTA buffer at pH 8.0 and blocking with 10% goat serum. Primary antibody was applied at 2 ug/mL overnight at 40C, followed by HRP-conjugated secondary antibody and DAB chromogen. Hematoxylin counterstaining highlights tissue architecture and nuclei.

EIF5B Antibody by IHC in rat brain. Immunohistochemistry of paraffin-embedded rat brain using Eukaryotic translation initiation factor 5B Antibody reveals brown staining within neuronal somata and neuropil. Sections underwent heat-mediated antigen retrieval in EDTA buffer at pH 8.0 and blocking with 10% goat serum. Primary antibody was applied at 2 ug/mL overnight at 40C, followed by HRP-conjugated secondary antibody and DAB chromogen. Hematoxylin counterstaining highlights tissue architecture and nuclei.

EIF5B Antibody by FACS in Jurkat cells. Intracellular flow cytometry using Eukaryotic translation initiation factor 5B Antibody demonstrates a fluorescence shift in fixed and permeabilized Jurkat cells relative to the rabbit IgG isotype control. The antibody-stained population is shown in blue, isotype control in green, and unstained control in red. Cells were fixed with 4% paraformaldehyde, permeabilized, blocked with 10% goat serum, and incubated with 1 ug primary antibody per 1×10^6 cells for 30 minutes at 20oC. Fluorescent secondary antibody was used for detection.

EIF5B Antibody by IP in human HepG2 cells. Immunoprecipitation using Eukaryotic translation initiation factor 5B Antibody was evaluated by Western blot of HepG2 whole-cell lysate. Lane 1 contains 30 ug input lysate, lane 2 is the rabbit IgG immunoprecipitation control, and lane 3 contains material precipitated with 2 ug primary antibody from 500 ug lysate. A high-molecular-weight band near 200 kDa is evident in the input and immunoprecipitated material, above the approximately 139 kDa calculated EIF5B mass. The membrane was probed with primary antibody at 0.5 ug/mL and detected using an HRP-conjugated secondary antibody and chemiluminescence.

Description

EIF5B Antibody / Eukaryotic translation initiation factor 5B Antibody detects EIF5B, a GTP-binding protein involved in the final stages of translation initiation. Protein synthesis begins when initiation factors help recruit a small ribosomal subunit to messenger RNA, identify a start codon, and position initiator methionyl-tRNA. EIF5B acts after key start-site selection events, promoting productive association of the large 60S subunit with the small 40S subunit. The resulting 80S ribosome can then enter the elongation phase of protein synthesis.

EIF5B is evolutionarily related to bacterial initiation factor IF2 and contains domains that coordinate nucleotide binding and interactions with ribosomal components. GTP binding and hydrolysis contribute to the ordered release of initiation factors as the ribosome transitions into elongation. These events must be coordinated because premature subunit joining or incomplete factor release can interfere with accurate protein synthesis. EIF5B operates within a network that also includes EIF2, EIF1, EIF1A, EIF3, and EIF5, although each factor performs a distinct role in initiation. The Eukaryotic translation initiation factor 5B Antibody designation refers to this same molecular target.

Control of translation initiation is an important mechanism for adjusting protein production in response to cellular conditions. EIF5B has been studied in settings where translation continues despite changes in canonical initiation pathways, but the details depend on transcript context and the availability of other factors. Its core biochemical function remains GTP-dependent support of ribosomal subunit joining. NSJ Bioreagents includes EIF5B among proteins associated with translational control and ribosome function. An EIF5B Antibody provides a way to investigate the biological role of EIF5B and the molecular processes associated with this target.

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Application Notes

Optimal working dilutions for the EIF5B Antibody / Eukaryotic translation initiation factor 5B Antibody should be established experimentally for each assay.

Immunogen

The EIF5B Antibody was generated using e. coli-derived human EIF5B recombinant protein (amino acids D188-E1162).

Storage

The EIF5B Antibody is stable for up to one month at 4°C after reconstitution. For longer-term storage, aliquot and store at -20°C for up to six months. Do not repeatedly freeze and thaw.

Alternate Names

EIF5B antibody, Eukaryotic translation initiation factor 5B antibody, EC:3.6.5.3 antibody, eIF 5B antibody, eIF-5B antibody, IF2 antibody, KIAA0741 antibody

