

EIF3K Antibody / Eukaryotic translation initiation factor 3 subunit K Antibody (FY13599)

Catalog No.	Formulation	Size
FY13599	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	Q9UBQ5
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	This EIF3K Antibody / Eukaryotic translation initiation factor 3 subunit K Antibody is provided for laboratory research use only.

EIF3K Antibody by IF in A549 cells. Immunofluorescence staining using Eukaryotic translation initiation factor 3 subunit K Antibody shows diffuse green cytoplasmic fluorescence surrounding DAPI-positive nuclei, with some green signal overlapping nuclear regions. Nuclei are counterstained blue with DAPI. Cells underwent enzyme-mediated antigen retrieval for 15 minutes and blocking with 10% goat serum. Primary antibody was applied at 5 ug/mL overnight at 4oC, followed by a Fluoro488-conjugated secondary antibody at 1:500 for 30 minutes at 37oC. The observed staining distribution is described without assuming organelle-specific colocalization.

EIF3K Antibody by IHC in human liver carcinoma. Immunohistochemistry of paraffin-embedded human liver carcinoma using Eukaryotic translation initiation factor 3 subunit K Antibody reveals widespread brown cytoplasmic staining in malignant epithelial cells. Sections underwent heat-mediated antigen retrieval in EDTA buffer (pH 8.0), followed by blocking with 10% goat serum. Primary antibody was applied at 2 ug/mL overnight at 40C, followed by peroxidase-conjugated secondary antibody and DAB chromogen. Hematoxylin counterstains the nuclei blue.

EIF3K Antibody by WB in human and rodent samples. Western blot analysis using Eukaryotic translation initiation factor 3 subunit K Antibody detects a prominent immunoreactive band near 25 kDa in human 293T (lane 1), HeLa (lane 2), A549 (lane 3), RT4 (lane 4), rat brain (lane 5), and mouse brain (lane 6). The calculated molecular weight is approximately 25 kDa. Reduced samples containing 30 ug protein per lane were separated by 12% SDS-PAGE and transferred to nitrocellulose. After blocking with 5% nonfat milk, the membrane was incubated with primary antibody at 0.5 ug/mL overnight at 40C. Detection used an HRP-conjugated secondary antibody at 1:5000 and a chemiluminescent substrate. The band positions are described relative to the molecular weight standards in the blot.

EIF3K Antibody by IP in HeLa cells. Immunoprecipitation using Eukaryotic translation initiation factor 3 subunit K Antibody was evaluated by Western blot. Lane 1 contains 30 ug HeLa input lysate, lane 2 contains the rabbit IgG control immunoprecipitate, and lane 3 contains material precipitated using 2 ug antibody and 500 ug HeLa lysate. A band near 25 kDa appears in the input and specific immunoprecipitate, consistent with the calculated EIF3K molecular weight. Immunoglobulin heavy chain is visible around 50 kDa in the immunoprecipitation lanes. The detection antibody was used at 0.5 ug/mL with HRP-conjugated secondary antibody and chemiluminescence.

EIF3K Antibody by FACS in RT4 cells. Flow cytometry using Eukaryotic translation initiation factor 3 subunit K Antibody detects intracellular staining in fixed, permeabilized RT4 cells. The antibody-stained population is blue and shifted to the right of the green rabbit IgG isotype control and red unstained control. Cells were fixed with 4% paraformaldehyde, permeabilized, and blocked with 10% normal goat serum. Primary antibody was used at 1 ug per 1×10^6 cells for 30 minutes at 20oC, followed by Fluoro488-conjugated secondary antibody. This assay does not assess live-cell surface staining.

Description

EIF3K Antibody / Eukaryotic translation initiation factor 3 subunit K Antibody detects EIF3K, a component of the multisubunit eIF3 complex involved in the initiation of protein synthesis. Translation initiation requires assembly of the small ribosomal subunit with initiator transfer RNA, messenger RNA, and a collection of initiation factors. eIF3 helps organize these interactions and supports productive recruitment of the translation machinery. EIF3K is one of the smaller subunits of this complex and contributes to its architecture and regulatory interactions.

The eIF3 complex participates in several steps preceding formation of an actively elongating ribosome. It helps maintain the appropriate state of the small ribosomal subunit and coordinates interactions with other initiation factors. Different eIF3 subunits occupy distinct positions within the assembly, creating interfaces for proteins and RNA. EIF3K has been described as a peripheral component in structural studies, and its interactions may influence complex organization without making it an independent catalyst of peptide bond formation. Translation initiation is tightly regulated because changes at this step can alter the production of many proteins. The designation Eukaryotic translation initiation factor 3 subunit K Antibody refers to the same gene product.

Beyond its canonical association with eIF3, EIF3K has been examined in studies of cell proliferation and stress responses. Observed changes in its abundance should be interpreted in the context of the complete initiation complex, since individual subunits may have different effects on complex stability and transcript selection. Cells adjust protein synthesis in response to nutrient availability, growth signals, and environmental stress, often through initiation-stage control. NSJ Bioreagents includes EIF3K among proteins involved in the molecular coordination of ribosome recruitment and regulated protein production. An EIF3K Antibody can help contextualize the molecular functions and regulation of this protein.

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Application Notes

Investigators should determine the optimal dilution of the EIF3K Antibody / Eukaryotic translation initiation factor 3 subunit K Antibody empirically for their experimental conditions.

Immunogen

The EIF3K Antibody was generated using e. coli-derived human EIF3K recombinant protein (amino acids M1-Q218).

Storage

Store the reconstituted EIF3K Antibody at 4oC for up to one month. For long-term storage, divide into aliquots and keep at -20oC for up to six months. Avoid repeated freeze-thaw cycles.

Alternate Names

EIF3K antibody, Eukaryotic translation initiation factor 3 subunit K antibody, ARG134 antibody, eIF 3 p25 antibody, eIF 3 p28 antibody, EIF3 p28 antibody, EIF3S12 antibody, HSPC029 antibody, M9 antibody, MSTP001 antibody, PLAC 24 antibody, PLAC24 antibody