EIF1AX Antibody / eIF1A X isoform [clone 29E67] (FY13061)

Catalog No.	Formulation	Size
FY13061	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human
Format	Liquid
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	29E67
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	P47813
Applications	Western Blot : 1:500-1:2000 Immunohistochemistry : 1:50-1:200 Immunocytochemistry/Immunofluorescence : 1:50-1:200 Immunoprecipitation : 1:50
Limitations	This eIF1A antibody / EIF1AX is available for research use only.

Description

EIF1AX antibody detects Eukaryotic translation initiation factor 1A X linked, encoded by the EIF1AX gene. This protein is a translation initiation factor that plays an essential role in assembling the 43S preinitiation complex, stabilizing Met tRNAi binding to the 40S ribosomal subunit, and scanning mRNAs for start codons. EIF1AX antibody provides researchers with a precise reagent for exploring how initiation factors regulate protein synthesis and contribute to disease.

Eukaryotic translation initiation factor 1A X linked is a member of the EIF1A family, which includes autosomal EIF1A and the X chromosome encoded isoform. Although both proteins share significant homology and overlapping function, EIF1AX has unique tissue expression and regulatory features. Research using EIF1AX antibody has demonstrated that depletion of this factor disrupts translation initiation, leading to defective ribosome loading and reduced protein synthesis. This highlights its central role in the earliest step of gene expression control.

Mutations in EIF1AX have been identified in several cancers, including uveal melanoma, thyroid carcinoma, and ovarian cancer. These mutations cluster in the N terminal tail of the protein and are thought to alter ribosomal scanning or initiation fidelity. Studies with EIF1AX antibody have shown that mutated EIF1AX expression alters global translation profiles, potentially driving oncogenesis by enhancing the synthesis of pro survival or proliferative proteins. This makes EIF1AX both a cancer biomarker and a potential therapeutic target.

Beyond cancer, EIF1AX is essential for development and cellular homeostasis. Research using EIF1AX antibody has revealed that knockdown in model organisms causes embryonic lethality due to failure of translation initiation. Its expression is enriched in proliferative tissues, consistent with high protein synthesis demands. Because translation initiation is tightly linked to growth signals such as mTOR and MAPK pathways, EIF1AX occupies a central position in connecting signaling to protein production.

EIF1AX antibody is used in western blotting, immunohistochemistry, and immunofluorescence. Western blotting confirms protein expression across proliferative cell lines, immunohistochemistry localizes EIF1AX in tissue sections, and immunofluorescence highlights its presence in the cytoplasm and nucleus. These techniques allow researchers to assess expression changes, localization, and associations with ribosomal components. Functional studies with EIF1AX antibody include co immunoprecipitation, revealing its interactions with initiation complex proteins and ribosomal subunits.

By supplying validated EIF1AX antibody reagents, NSJ Bioreagents supports research into translation initiation, cancer, and gene expression regulation. Detection of Eukaryotic translation initiation factor 1A X linked provides insight into how protein synthesis is controlled and how its disruption contributes to pathology.

Application Notes

Optimal dilution of the eIF1A antibody / EIF1AX should be determined by the researcher.

Immunogen

A synthesized peptide derived from human eIF1A was used as the immunogen for the eIF1A antibody / EIF1AX.

Storage

Store the eIF1A antibody / EIF1AX at -20oC.