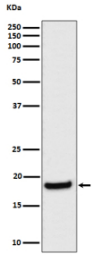
EIF1AX Antibody / eIF1A X isoform [clone 29E78] (FY12773)

Catalog No.	Formulation	Size
FY12773	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, Mouse, Rat
Format	Liquid
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	29E78
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 Flow Cytometry : 1:50
Limitations	This EIF1AX antibody is available for research use only.



Western blot analysis of eIF1A expression in human HeLa cell lysate using EIF1AX antibody. Predicted molecular weight ~16 kDa.

Description

EIF1AX antibody detects eukaryotic translation initiation factor 1A X linked isoform, encoded by the EIF1AX gene.

Common names include eIF1A X isoform, translation initiation factor SUI1 homolog, and X linked eukaryotic translation initiation factor 1A. EIF1AX is a small but critical initiation factor that promotes scanning of mRNA and start codon recognition during translation initiation. It interacts with the 40S ribosomal subunit and other initiation factors to assemble the translation preinitiation complex, ensuring accurate start site selection and efficient protein synthesis.

EIF1AX antibody is widely applied in molecular biology, cancer research, and developmental studies. Translation initiation is a highly regulated step in gene expression, and EIF1AX ensures fidelity in AUG codon selection. Mutations in EIF1AX have been identified in uveal melanoma, thyroid cancer, and endometrial carcinoma, where they cooperate with other oncogenic events. By detecting EIF1AX, researchers can study how altered initiation contributes to tumor biology and translational control.

Applications for EIF1AX antibody include western blotting, immunohistochemistry, and immunofluorescence. Western blotting detects EIF1AX expression in cell lysates, immunohistochemistry maps its expression in tumors and tissues, and immunofluorescence highlights nuclear and cytoplasmic localization. These assays provide strong tools to evaluate translation initiation factor biology in both normal and disease contexts.

EIF1AX mutations often cluster at the N terminus, affecting interactions with other initiation factors and altering start codon selection. Dysregulation of initiation leads to abnormal gene expression patterns, contributing to cell proliferation and tumorigenesis. By applying EIF1AX antibody, scientists can study these processes in detail and evaluate EIF1AX as a potential biomarker or therapeutic target.

EIF1AX also functions in normal development, where accurate translation initiation is critical for embryogenesis and tissue growth. Its conservation across species highlights its fundamental role in biology. The antibody therefore supports research from basic ribosome biology to applied cancer translational studies.

Application Notes

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

Immunogen

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

Storage

Store the EIF1AX antibody at -20oC.