

EIF4A3 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP55620

Specification

EIF4A3 Polyclonal Antibody - Product Information

Application	IHC-P, WB
Primary Accession	P38919
Reactivity	Rat, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	46871

EIF4A3 Polyclonal Antibody - Additional Information

Gene ID 9775

Other Names

Eukaryotic initiation factor 4A-III, eIF-4A-III, eIF4A-III, 3.6.4.13, ATP-dependent RNA helicase DDX48, ATP-dependent RNA helicase eIF4A-3, DEAD box protein 48, Eukaryotic initiation factor 4A-like NUK-34, Eukaryotic translation initiation factor 4A isoform 3, Nuclear matrix protein 265, NMP 265, hNMP 265, Eukaryotic initiation factor 4A-III, N-terminally processed, EIF4A3, DDX48, KIAA0111

Format

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

EIF4A3 Polyclonal Antibody - Protein Information

Name EIF4A3

Synonyms DDX48, KIAA0111

Function

ATP-dependent RNA helicase (PubMed:[16170325](http://www.uniprot.org/citations/16170325)). Involved in pre-mRNA splicing as component of the spliceosome (PubMed:[11991638](http://www.uniprot.org/citations/11991638), PubMed:[22961380](http://www.uniprot.org/citations/22961380), PubMed:[28076346](http://www.uniprot.org/citations/28076346), PubMed:[28502770](http://www.uniprot.org/citations/28502770), PubMed:[29301961](http://www.uniprot.org/citations/29301961)). Core component of the splicing-dependent multiprotein exon junction complex (EJC) deposited at splice junctions on mRNAs (PubMed:[16170325](http://www.uniprot.org/citations/16170325), PubMed:[16209946](http://www.uniprot.org/citations/16209946)

target="_blank">16209946, PubMed:16314458, PubMed:16923391, PubMed:16931718, PubMed:19033377, PubMed:20479275). The EJC is a dynamic structure consisting of core proteins and several peripheral nuclear and cytoplasmic associated factors that join the complex only transiently either during EJC assembly or during subsequent mRNA metabolism. The EJC marks the position of the exon-exon junction in the mature mRNA for the gene expression machinery and the core components remain bound to spliced mRNAs throughout all stages of mRNA metabolism thereby influencing downstream processes including nuclear mRNA export, subcellular mRNA localization, translation efficiency and nonsense-mediated mRNA decay (NMD). Its RNA-dependent ATPase and RNA-helicase activities are induced by CASC3, but abolished in presence of the MAGOH-RBM8A heterodimer, thereby trapping the ATP-bound EJC core onto spliced mRNA in a stable conformation. The inhibition of ATPase activity by the MAGOH-RBM8A heterodimer increases the RNA-binding affinity of the EJC. Involved in translational enhancement of spliced mRNAs after formation of the 80S ribosome complex. Binds spliced mRNA in sequence-independent manner, 20-24 nucleotides upstream of mRNA exon-exon junctions. Shows higher affinity for single-stranded RNA in an ATP-bound core EJC complex than after the ATP is hydrolyzed. Involved in the splicing modulation of BCL2L1/Bcl-X (and probably other apoptotic genes); specifically inhibits formation of proapoptotic isoforms such as Bcl-X(S); the function is different from the established EJC assembly (PubMed:22203037). Involved in craniofacial development (PubMed:24360810).

Cellular Location

Nucleus. Nucleus speckle. Cytoplasm {ECO:0000250|UniProtKB:Q3B8Q2}.

Note=Nucleocytoplasmic shuttling protein. Travels to the cytoplasm as part of the exon junction complex (EJC) bound to mRNA. Detected in dendritic layer as well as the nuclear and cytoplasmic (somatic) compartments of neurons. Colocalizes with STAU1 and FMR1 in dendrites (By similarity) {ECO:0000250|UniProtKB:Q3B8Q2}

Tissue Location

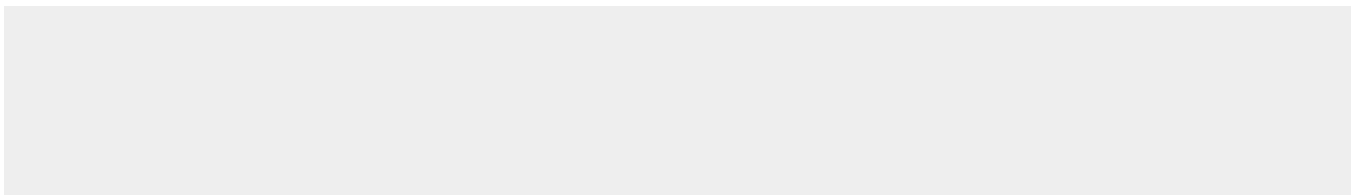
Ubiquitously expressed.

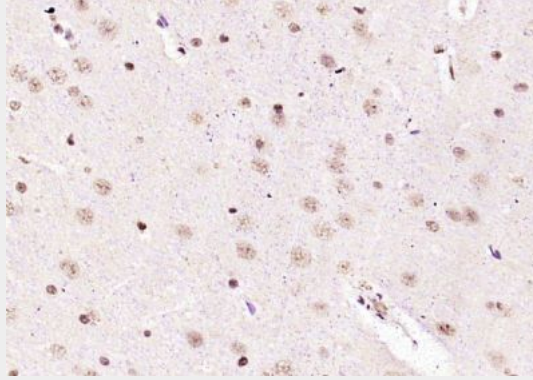
eIF4A3 Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

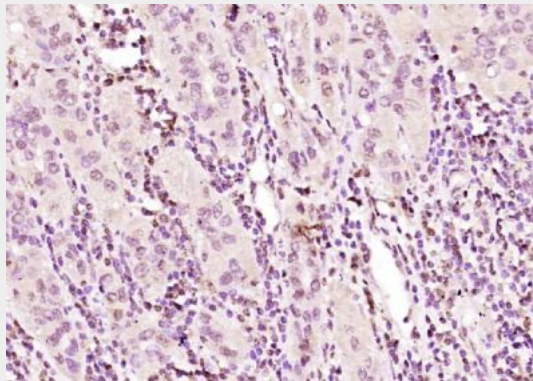
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

eIF4A3 Polyclonal Antibody - Images

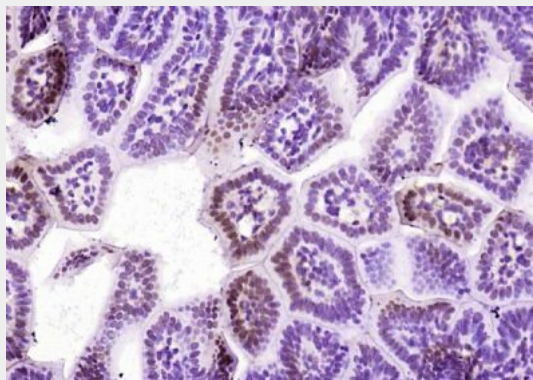




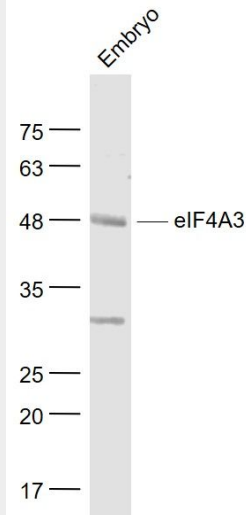
Paraformaldehyde-fixed, paraffin embedded (rat brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (eIF4A3) Polyclonal Antibody, Unconjugated (bs-14548R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining



Paraformaldehyde-fixed, paraffin embedded (human liver carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (eIF4A3) Polyclonal Antibody, Unconjugated (bs-14548R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (mouse embryos tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (eIF4A3) Polyclonal Antibody, Unconjugated (bs-14548R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.

**Sample:**

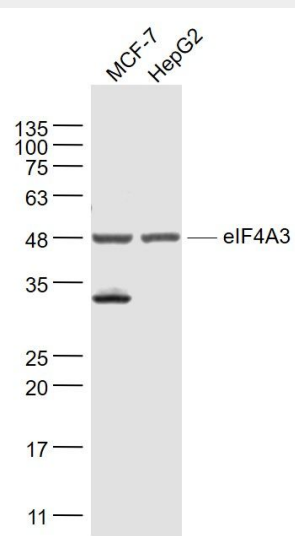
Embryo (Mouse) Lysate at 40 ug

Primary: Anti- eIF4A3 (bs-14548R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 47 kD

Observed band size: 47 kD

**Sample:**

MCF-7(Human) Cell Lysate at 30 ug

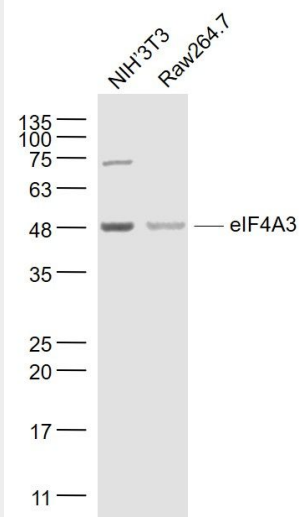
HepG2(Human) Cell Lysate at 30 ug

Primary: Anti- eIF4A3 (bs-14548R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 47 kD

Observed band size: 47 kD



Sample:

NIH/3T3(Mouse) Cell Lysate at 30 ug

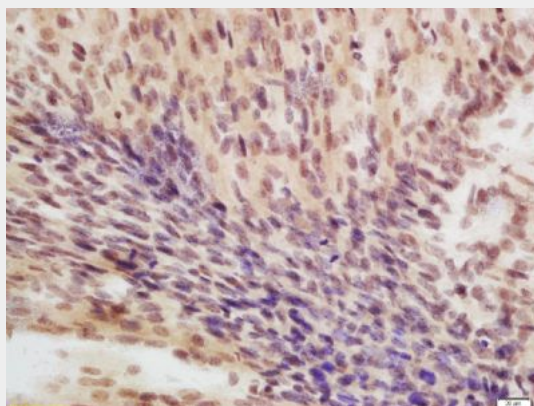
Raw264.7(Mouse) Cell Lysate at 30 ug

Primary: Anti- eIF4A3 (bs-14548R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 47 kD

Observed band size: 47 kD



Tissue/cell: mouse embryo tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-eIF4A3 Polyclonal Antibody, Unconjugated(bs-14548R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining