

## Anti-eIF4A3 Rabbit Monoclonal Antibody Catalog # ABO15318

### Specification

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#### Anti-eIF4A3 Rabbit Monoclonal Antibody - Product Information

Application	WB, IHC, IF, ICC, IP, FC
Primary Accession	<a href="#">P38919</a>
Host	Rabbit
Isotype	IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid

#### Description

Anti-eIF4A3 Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, IP, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.

#### Anti-eIF4A3 Rabbit Monoclonal 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

#### Calculated MW

47 kDa KDa

#### Application Details

WB 1:500-1:2000<br>IHC 1:50-1:200<br>ICC/IF 1:50-1:200<br>IP 1:40<br>FC 1:100

#### Contents

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

#### Immunogen

A synthesized peptide derived from human eIF4A3

#### Purification

Affinity-chromatography

#### Storage

Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

#### Anti-eIF4A3 Rabbit Monoclonal Antibody - Protein Information

**Name** EIF4A3**Synonyms** DDX48, KIAA0111**Function**

ATP-dependent RNA helicase (PubMed:<a href="http://www.uniprot.org/citations/16170325" target="\_blank">16170325</a>). Involved in pre-mRNA splicing as component of the spliceosome (PubMed:<a href="http://www.uniprot.org/citations/11991638" target="\_blank">11991638</a>, PubMed:<a href="http://www.uniprot.org/citations/22961380" target="\_blank">22961380</a>, PubMed:<a href="http://www.uniprot.org/citations/28076346" target="\_blank">28076346</a>, PubMed:<a href="http://www.uniprot.org/citations/28502770" target="\_blank">28502770</a>, PubMed:<a href="http://www.uniprot.org/citations/29301961" target="\_blank">29301961</a>). Core component of the splicing-dependent multiprotein exon junction complex (EJC) deposited at splice junctions on mRNAs (PubMed:<a href="http://www.uniprot.org/citations/16170325" target="\_blank">16170325</a>, PubMed:<a href="http://www.uniprot.org/citations/16209946" target="\_blank">16209946</a>, PubMed:<a href="http://www.uniprot.org/citations/16314458" target="\_blank">16314458</a>, PubMed:<a href="http://www.uniprot.org/citations/16923391" target="\_blank">16923391</a>, PubMed:<a href="http://www.uniprot.org/citations/16931718" target="\_blank">16931718</a>, PubMed:<a href="http://www.uniprot.org/citations/19033377" target="\_blank">19033377</a>, PubMed:<a href="http://www.uniprot.org/citations/20479275" target="\_blank">20479275</a>). 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:<a href="http://www.uniprot.org/citations/22203037" target="\_blank">22203037</a>). Involved in craniofacial development (PubMed:<a href="http://www.uniprot.org/citations/24360810" target="\_blank">24360810</a>).

**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**

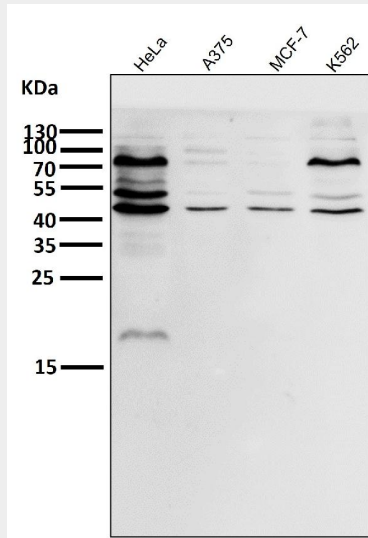
Ubiquitously expressed.

**Anti-eIF4A3 Rabbit Monoclonal Antibody - Protocols**

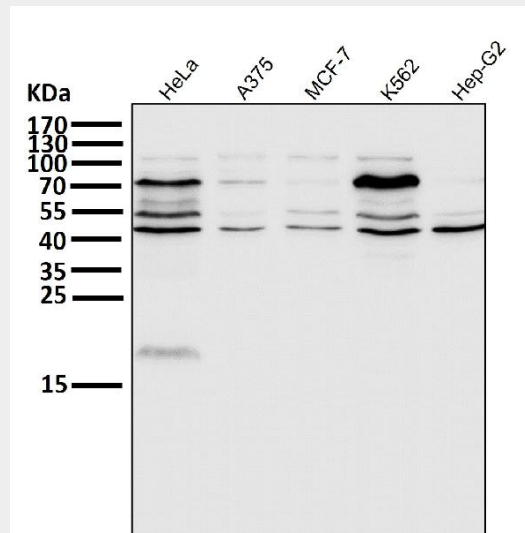
Provided below are standard protocols that you may find useful for product applications.

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

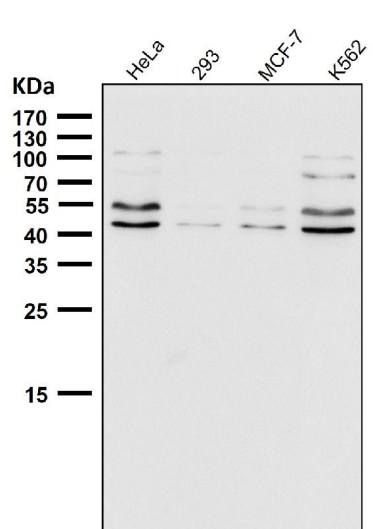
### Anti-eIF4A3 Rabbit Monoclonal Antibody - Images



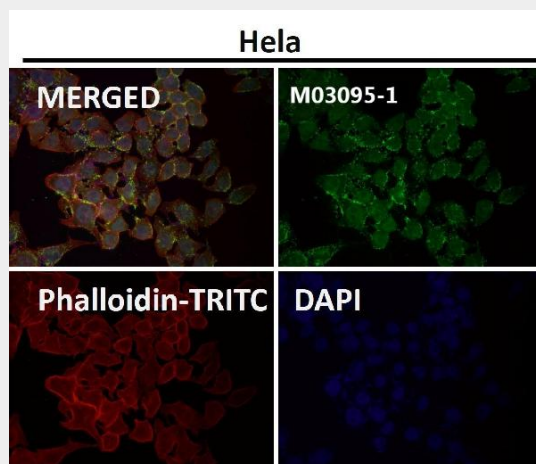
All lanes use the Antibody at 1:500 dilution for 1 hour at room temperature.



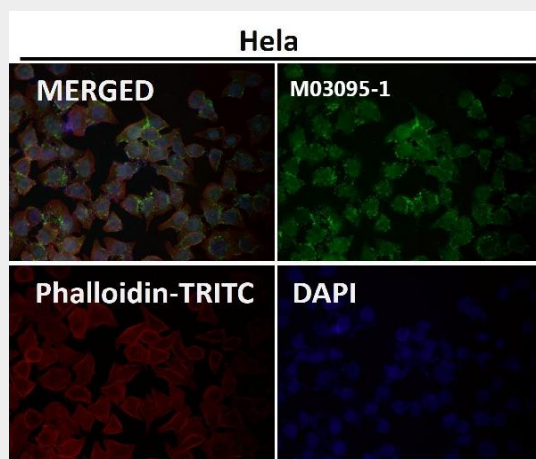
All lanes use the Antibody at 1:500 dilution for 1 hour at room temperature.



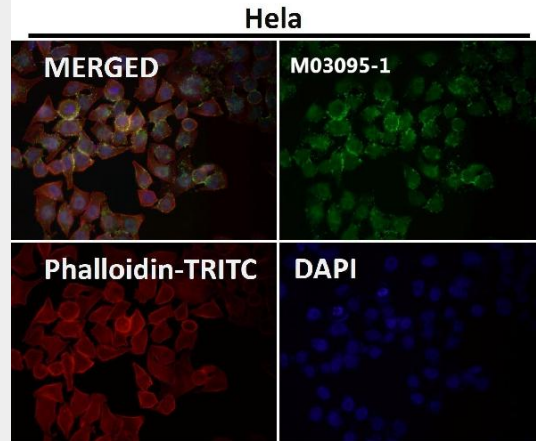
All lanes use the Antibody at 1:500 dilution for 1 hour at room temperature.



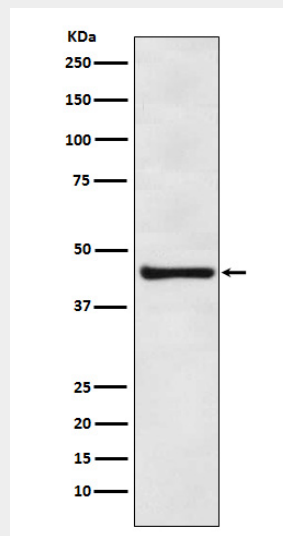
Immunofluorescent analysis using the Antibody at 1:50 dilution.



Immunofluorescent analysis using the Antibody at 1:150 dilution.



Immunofluorescent analysis using the Antibody at 1:500 dilution.



Western blot analysis of eIF4A3 expression in HeLa cell treated with NFDN.