

**EIF4ENIF1 Antibody (N-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP14376a****Specification**

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**EIF4ENIF1 Antibody (N-term) Blocking Peptide - Product Information**Primary Accession [Q9NRA8](#)**EIF4ENIF1 Antibody (N-term) Blocking Peptide - Additional Information**

Gene ID 56478

**Other Names**

Eukaryotic translation initiation factor 4E transporter, 4E-T, eIF4E transporter, Eukaryotic translation initiation factor 4E nuclear import factor 1, EIF4ENIF1

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**EIF4ENIF1 Antibody (N-term) Blocking Peptide - Protein Information**Name EIF4ENIF1 ([HGNC:16687](#))**Function**

EIF4E-binding protein that regulates translation and stability of mRNAs in processing bodies (P-bodies) (PubMed: [16157702](http://www.uniprot.org/citations/16157702), PubMed: [24335285](http://www.uniprot.org/citations/24335285), PubMed: [27342281](http://www.uniprot.org/citations/27342281), PubMed: [32354837](http://www.uniprot.org/citations/32354837)). Plays a key role in P-bodies to coordinate the storage of translationally inactive mRNAs in the cytoplasm and prevent their degradation (PubMed: [24335285](http://www.uniprot.org/citations/24335285), PubMed: [32354837](http://www.uniprot.org/citations/32354837)). Acts as a binding platform for multiple RNA-binding proteins: promotes deadenylation of mRNAs via its interaction with the CCR4-NOT complex, and blocks decapping via interaction with eIF4E (EIF4E and EIF4E2), thereby protecting deadenylated and repressed mRNAs from degradation (PubMed: [27342281](http://www.uniprot.org/citations/27342281), PubMed: [32354837](http://www.uniprot.org/citations/32354837)). Component of a multiprotein complex that sequesters and represses translation of proneurogenic factors during neurogenesis (By similarity). Promotes miRNA-mediated translational repression (PubMed: [24335285](http://www.uniprot.org/citations/24335285),

PubMed:<a href="http://www.uniprot.org/citations/27342281" target="\_blank">27342281</a>, PubMed:<a href="http://www.uniprot.org/citations/28487484" target="\_blank">28487484</a>). Required for the formation of P- bodies (PubMed:<a href="http://www.uniprot.org/citations/16157702" target="\_blank">16157702</a>, PubMed:<a href="http://www.uniprot.org/citations/22966201" target="\_blank">22966201</a>, PubMed:<a href="http://www.uniprot.org/citations/27342281" target="\_blank">27342281</a>, PubMed:<a href="http://www.uniprot.org/citations/32354837" target="\_blank">32354837</a>). Involved in mRNA translational repression mediated by the miRNA effector TNRC6B by protecting TNRC6B-targeted mRNAs from decapping and subsequent decay (PubMed:<a href="http://www.uniprot.org/citations/32354837" target="\_blank">32354837</a>). Also acts as a nucleoplasmic shuttling protein, which mediates the nuclear import of EIF4E and DDX6 by a piggy-back mechanism (PubMed:<a href="http://www.uniprot.org/citations/10856257" target="\_blank">10856257</a>, PubMed:<a href="http://www.uniprot.org/citations/28216671" target="\_blank">28216671</a>).

### **Cellular Location**

Cytoplasm, P-body. Cytoplasm. Nucleus. Nucleus, PML body. Nucleus speckle. Note=Predominantly cytoplasmic (PubMed:10856257). Mainly localizes to processing bodies (P-bodies) (PubMed:16157702). Shuttles between the nucleus and the cytoplasm in a CRM1-dependent manner (PubMed:10856257). Localization to nuclear foci and speckles requires active transcription (PubMed:22090346)

### **Tissue Location**

Widely expressed..

## **EIF4ENIF1 Antibody (N-term) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

## **EIF4ENIF1 Antibody (N-term) Blocking Peptide - Images**

## **EIF4ENIF1 Antibody (N-term) Blocking Peptide - Background**

The protein encoded by this gene is a nucleocytoplasmicshuttle protein for the translation initiation factor eIF4E. Thisshuttle protein interacts with the importin alpha-beta complex tomediate nuclear import of eIF4E. It is predominantly cytoplasmic;its own nuclear import is regulated by a nuclear localizationsignal and nuclear export signals. Multiple transcript variantsencoding different isoforms have been found for this gene.

## **EIF4ENIF1 Antibody (N-term) Blocking Peptide - References**

Suzuki, Y., et al. J. Biol. Chem. 284(51):35597-35604(2009)Venkatesan, K., et al. Nat. Methods 6(1):83-90(2009)Lee, H.C., et al. Biochem. Biophys. Res. Commun. 369(4):1160-1165(2008)Denoeud, F., et al. Genome Res. 17(6):746-759(2007)Lim, J., et al. Cell 125(4):801-814(2006)