

**EIF4E Antibody (S1232)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AE1011c****Specification**

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**EIF4E Antibody (S1232) - Product Information**

Application	<b>WB, IHC, IF</b>
Primary Accession	<a href="#">Q04637</a>
Reactivity	<b>Human</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Concentration	<b>1mg/ml</b>
Isotype	<b>Rabbit IgG</b>
Calculated MW	<b>175491</b>

**EIF4E Antibody (S1232) - Additional Information****Gene ID** 1981**Other Names**

Eukaryotic translation initiation factor 4 gamma 1, eIF-4-gamma 1, eIF-4G 1, eIF-4G1, p220, EIF4G1, EIF4F, EIF4G, EIF4G1

**Target/Specificity**

The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

**Dilution**WB~~1:500~1:1000  
IHC~~1:50~1:100  
IF~~1:100~200**Format**

affinity Purified IgG, in PBS, 0.02% sodium azide and 50% glycerol.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

EIF4E Antibody (S1232) is for research use only and not for use in diagnostic or therapeutic procedures.

**EIF4E Antibody (S1232) - Protein Information****Name** EIF4G1

**Synonyms** EIF4F, EIF4G, EIF4G1

**Function**

Component of the protein complex eIF4F, which is involved in the recognition of the mRNA cap, ATP-dependent unwinding of 5'-terminal secondary structure and recruitment of mRNA to the ribosome (PubMed:<a href="http://www.uniprot.org/citations/29987188" target="\_blank">29987188</a>). Exists in two complexes, either with EIF1 or with EIF4E (mutually exclusive) (PubMed:<a href="http://www.uniprot.org/citations/29987188" target="\_blank">29987188</a>). Together with EIF1, is required for leaky scanning, in particular for avoiding cap-proximal start codon (PubMed:<a href="http://www.uniprot.org/citations/29987188" target="\_blank">29987188</a>). Together with EIF4E, antagonizes the scanning promoted by EIF1-EIF4G1 and locates the start codon (through a TISU element) without scanning (PubMed:<a href="http://www.uniprot.org/citations/29987188" target="\_blank">29987188</a>). As a member of the eIF4F complex, required for endoplasmic reticulum stress-induced ATF4 mRNA translation (PubMed:<a href="http://www.uniprot.org/citations/29062139" target="\_blank">29062139</a>).

**Cellular Location**

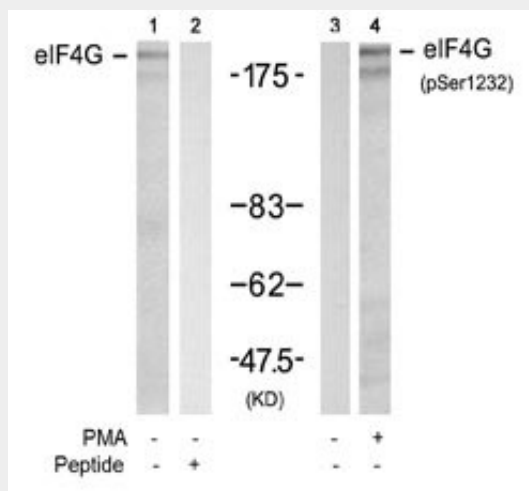
Cytoplasm. Nucleus. Cytoplasm, Stress granule

**EIF4E Antibody (S1232) - Protocols**

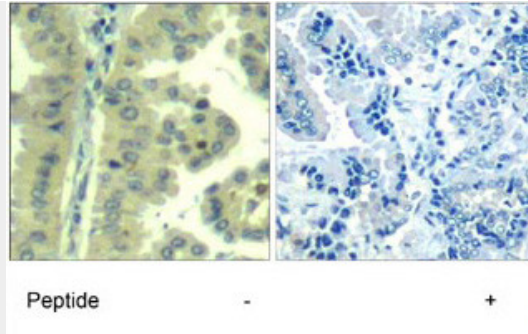
Provided below are standard protocols that you may find useful for product applications.

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

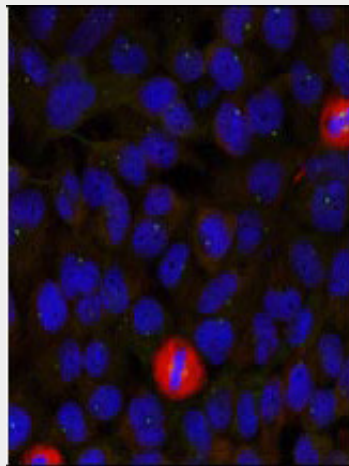
**EIF4E Antibody (S1232) - Images**



Western blot analysis of extracts from 293 cell using EIF4E Antibody (S1232) (#AE1011c, Lane 1 and 2) and Phospho-EIF4G-S-1232 Antibody (#AE1011d, Lane 3 and 4).



Immunohistochemical analysis of paraffin-embedded human lung carcinoma tissue using EIF4E Antibody (S1232) (#AE1011c).



Immunofluorescence staining of methanol-fixed HeLa cells using EIF4E Antibody (S1232)

### EIF4E Antibody (S1232) - Background

The protein encoded by this gene is a component of the multi-subunit protein complex EIF4F. This complex facilitates the recruitment of mRNA to the ribosome, which is a rate-limiting step during the initiation phase of protein synthesis. The recognition of the mRNA cap and the ATP-dependent unwinding of 5'-terminal secondary structure is catalyzed by factors in this complex. The subunit encoded by this gene is a large scaffolding protein that contains binding sites for other members of the EIF4F complex. A domain at its N-terminus can also interact with the poly(A)-binding protein, which may mediate the circularization of mRNA during translation. Alternative splicing results in multiple transcript variants, some of which are derived from alternative promoter usage.

### EIF4E Antibody (S1232) - References

Over-expression of eukaryotic translation initiation factor 4 gamma 1 correlates with tumor progression and poor prognosis in nasopharyngeal carcinoma. Tu L, et al. Mol Cancer, 2010 Apr 16. PMID 20398343.

Nuclear assortment of eIF4E coincides with shut-off of host protein synthesis upon poliovirus infection. Sukarieh R, et al. J Gen Virol, 2010 May. PMID 20053821.

NAD(P)H quinone-oxydoreductase 1 protects eukaryotic translation initiation factor 4G1 from degradation by the proteasome. Alard A, et al. Mol Cell Biol, 2010 Feb. PMID 20028737.

HIV- 1 protease inhibits Cap- and poly(A)-dependent translation upon eIF4G1 and PABP cleavage. Castell $\square$  A, et al. PLoS One, 2009 Nov 24. PMID 19956697.

The Hsp90 inhibitor geldanamycin abrogates colocalization of eIF4E and eIF4E-transporter into stress granules and association of eIF4E with eIF4G. Suzuki Y, et al. J Biol Chem, 2009 Dec 18. PMID 19850929.