

**Product Name: eIF4G Rabbit Polyclonal Antibody**  
**Catalog #: APRab10390**



## Summary

<b>Production Name</b>	eIF4G Rabbit Polyclonal Antibody
<b>Description</b>	Rabbit Polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	IHC,IF,ELISA
<b>Reactivity</b>	Human,Mouse,Rat

## Performance

<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal
<b>Form</b>	Liquid
<b>Storage</b>	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
<b>Buffer</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
<b>Purification</b>	Affinity purification

## Immunogen

<b>Gene Name</b>	EIF4G1
<b>Alternative Names</b>	EIF4G1; EIF4F; EIF4G; EIF4GI; Eukaryotic translation initiation factor 4 gamma 1; eIF-4-gamma 1; eIF-4G 1; eIF-4G1; p220
<b>Gene ID</b>	1981.0
<b>SwissProt ID</b>	Q04637.The antiserum was produced against synthesized peptide derived from human eIF4G. AA range:1074-1123

## Application

<b>Dilution Ratio</b>	IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:5000. Not yet tested in other applications.
<b>Molecular Weight</b>	175kD

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## Background

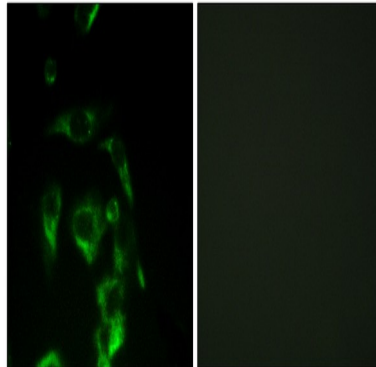
The protein encoded by this gene is a component of the multi-subunit protein complex EIF4F. This complex facilitates the recruitment of mRNA to the ribosome, which is a rate-limiting step during the initiation phase of protein synthesis. The recognition of the mRNA cap and the ATP-dependent unwinding 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. [provided by RefSeq, Aug 2010],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.,PTM:Following infection by certain enteroviruses, rhinoviruses and aphthoviruses, EIF4G1 is cleaved by the viral protease 2A, or the leader protease in the case of aphthoviruses. This shuts down the capped cellular mRNA transcription.,PTM:Phosphorylated at multiple sites in vivo.,sequence caution:Aberrant splicing.,similarity:Belongs to the eIF4G family.,similarity:Contains 1 MI domain.,similarity:Contains 1 MIF4G domain.,similarity:Contains 1 W2 domain.,subunit:eIF4F is a multi-subunit complex, the composition of which varies with external and internal environmental conditions. It is composed of at least EIF4A, EIF4E and EIF4G1/EIF4G3. Interacts with eIF3, mutually exclusive with EIF4A1 or EIFA2, EIF4E and through its N-terminus with PAPBC1. Interacts through its C-terminus with the serine/threonine kinases MKNK1, and with MKNK2. Appears to act as a scaffold protein, holding these enzymes in place to phosphorylate EIF4E. Non-phosphorylated EIF4EBP1 competes with EIF4G1/EIF4G3 to interact with EIF4E; insulin stimulated MAP-kinase (MAPK1 and MAPK3) phosphorylation of EIF4EBP1 causes dissociation of the complex allowing EIF4G1/EIF4G3 to bind and consequent initiation of translation. EIF4G1/EIF4G3 interacts with PAPBC1 to bring about circularization of the mRNA. Rapamycin can attenuate insulin stimulation mediated by FKBP. Interacts with EIF4E3. Interacts with MIF4GD. Interacts with rotavirus A NSP3; in this interaction, NSP3 takes the place of PAPBC1 thereby inducing shutoff of host protein synthesis.,

## Research Area

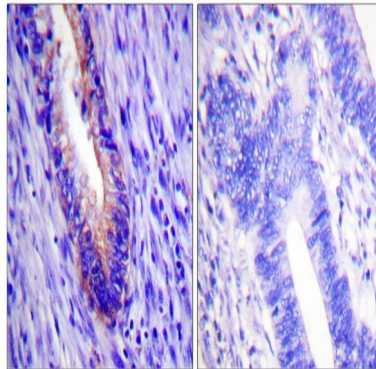
Viral myocarditis;

## Image Data

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Immunofluorescence analysis of HeLa cells, using eIF4G Antibody. The picture on the right is blocked with the synthesized peptide.



Immunohistochemistry analysis of paraffin-embedded human colon carcinoma tissue, using eIF4G Antibody. The picture on the right is blocked with the synthesized peptide.

## **Note**

For research use only.