

**#2469** Store at -20°C

# eIF4G (C45A4) Rabbit mAb

100 µl  
 (10 western blots)



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rev. 03/10/10

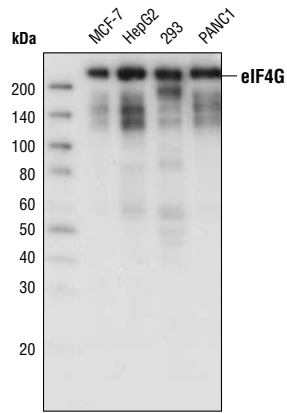
This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IHC-P, IF-IC, F Endogenous	H, M, R, Mk	220 kDa	Rabbit IgG**

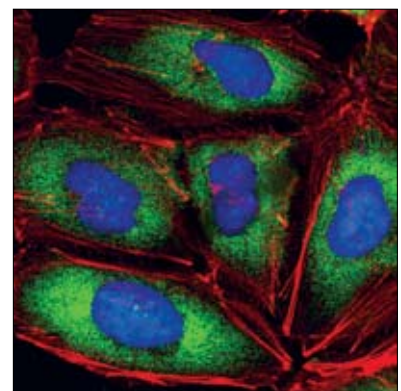
**Background:** The initiation of translation is an important biological event and a variety of factors contribute to this process. Members of the eIF4 translation initiation factor family bind to the 5' m<sup>7</sup>GTP mRNA cap and unwind the mRNA secondary structure (1,2). The amino-terminal portion of eIF4G physically associates with eIF4E to stimulate the binding of eIF4E to the mRNA cap structure (3). eIF4G also interacts with eIF3 and eIF4A and serves as an adaptor molecule in the eIF4 complex (4). Moreover, eIF4G plays a role in internal ribosomal entry site (IRES)-mediated initiation of translation (5,6). The eIF4G family includes eIF4G1 (eIF4GI), eIF4G2 (p97, DAP5 or NAT1), and eIF4G3 (eIF4GII) (7). These factors share a homologous sequence that provides for interaction with initiation factors eIF3 and eIF4A. Both eIF4G1 and eIF4G3 are involved in cap-dependent translation, while eIF4G2 plays a role in IRES-mediated translation of some genes during cell stress (7,8).

**Specificity/Sensitivity:** eIF4G (C45A4) Rabbit mAb detects endogenous levels of total eIF4G protein.

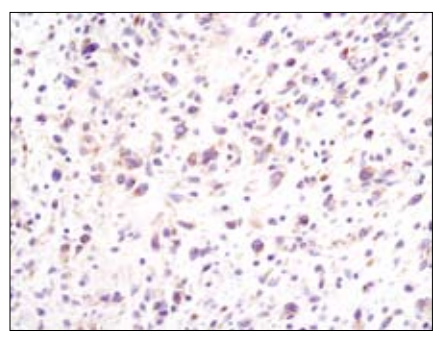
**Source/Purification:** eIF4G (C45A4) Rabbit mAb is produced by immunizing rabbits with a synthetic peptide corresponding to residues surrounding Gly188 of human eIF4G.



Western blot analysis of extracts from various cell lines using eIF4G (C45A4) Rabbit mAb.



Confocal immunofluorescent analysis of HeLa cells using eIF4G (C45A4) Rabbit mAb (green). Actin filaments have been labeled with Alexa Fluor® 555 phalloidin (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).



Immunohistochemical analysis of paraffin-embedded human glioblastoma using eIF4G (C45A4) Rabbit mAb.

**IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.**

**Entrez-Gene ID** #1981  
**Swiss-Prot Acc.** #Q04637

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

**\*Species cross-reactivity is determined by western blot.**  
**\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.**

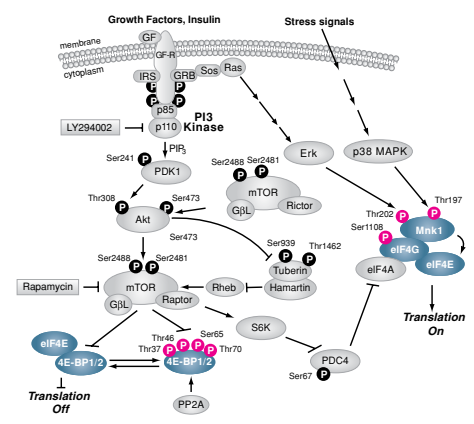
**Recommended Antibody Dilutions:**

Western blotting	1:1000
Immunohistochemistry (Paraffin)	1:50
Unmasking buffer:	Citrate
Antibody diluent:	TBST-5%NGS
Immunofluorescence (IF-IC)	1:200
Flow Cytometry	1:200

For application specific protocols please see the web page for this product at [www.cellsignaling.com](http://www.cellsignaling.com).

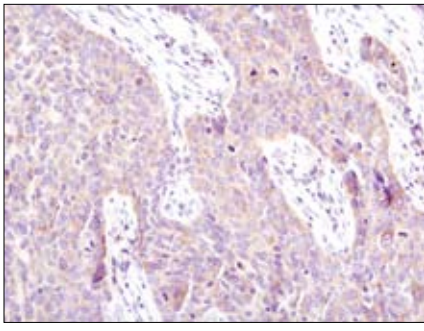
Please visit [www.cellsignaling.com](http://www.cellsignaling.com) for a complete listing of recommended companion products.

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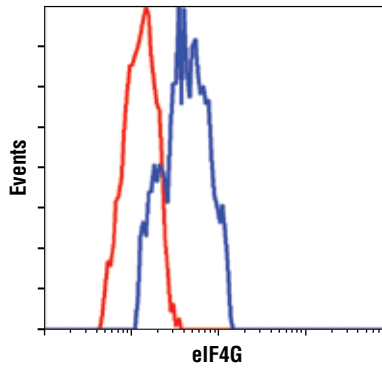


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**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide  
**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine  
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.



Immunohistochemical analysis of paraffin-embedded human lung carcinoma using eIF4G (C45A4) Rabbit mAb.



Flow cytometric analysis of HeLa cells using eIF4G (C45A4) Rabbit mAb (blue) compared to a nonspecific negative control antibody (red).

#### Background References:

- (1) Yan, R. and Rhoads, R.E. (1995) *Genomics* 26, 394-398.
- (2) Morley, S.J. et al. (1997) *RNA* 3, 1085-1104.
- (3) Haghghat, A. and Sonenberg, N. (1997) *J. Biol. Chem.* 272, 21677-21680.
- (4) De Gregorio, E. et al. (1998) *RNA* 4, 828-836.
- (5) Ohlmann, T. et al. (1996) *EMBO J.* 15, 1371-1382.
- (6) Borman, A.M. and Kean, K.M. (1997) *Virology* 237, 129-136.
- (7) Henis-Korenblit, S. et al. (2002) *Proc. Natl. Acad. Sci. USA* 99, 5400-5405.
- (8) Nevins, T.A. et al. (2003) *J. Biol. Chem.* 278, 3572-3579.