#2858 Store at –20°C

eIF4GI Antibody

☑ 100 µl
(10 western blots)

Cell Signaling TECHNOLOGY®

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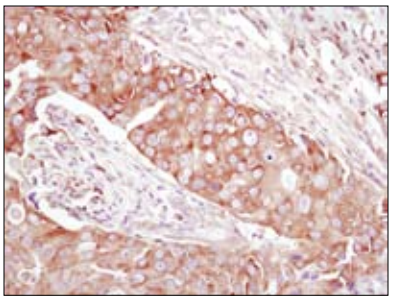
Entrez-Gene ID # 1981
Swiss-Prot Acc. # Q04637

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

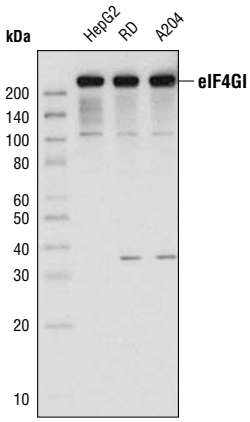
Background: The initiation of translation is an important biological event and a variety of factors contribute to this process. Members of the eIF4 translation initiation factor family bind to the 5' m^7GTP mRNA cap and unwind the mRNA secondary structure (1,2). The amino-terminal portion of eIF4G physically 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: eIF4GI Antibody detects endogenous levels of total eIF4GI protein.

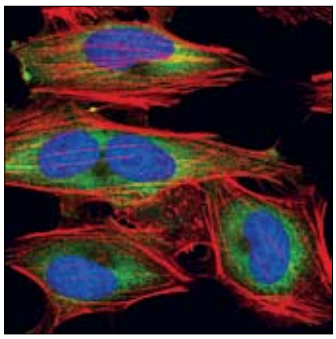
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the sequence of human eIF4GI. Antibodies are purified by peptide affinity chromatography.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma using eIF4GI Antibody.



Western blot analysis of extracts from HepG2, RD and A204 cells using eIF4GI Antibody.



Confocal immunofluorescent analysis of HeLa cells using eIF4GI Antibody (green). Actin filaments have been labeled with DY-554 phalloidin (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. 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

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

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) Haghighat, 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.

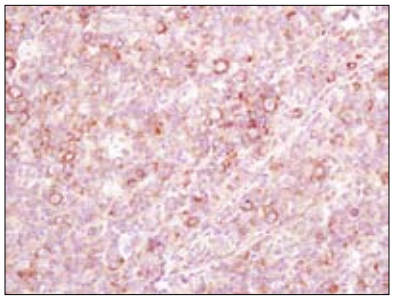
(7) Henis-Korenblit, S. et al. (2002) *Proc. Natl. Acad. Sci. USA* 99, 5400-5405.

(8) Nevins, T.A. et al. (2003) *J. Biol. Chem.* 278, 3572-3579.

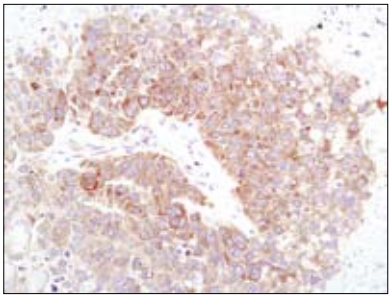
IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide

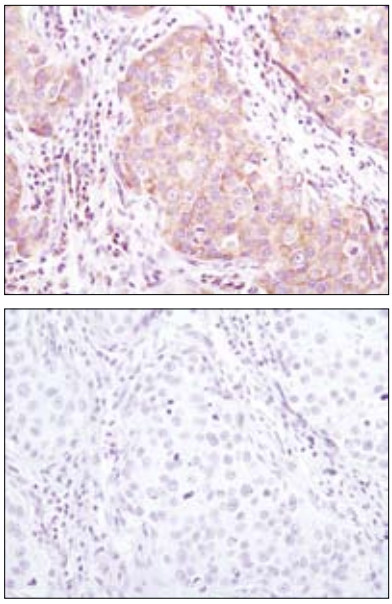
Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—Horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.



Immunohistochemical analysis of paraffin-embedded human lymphoma using eIF4GI Antibody.



Immunohistochemical analysis of paraffin-embedded human lung carcinoma using eIF4GI Antibody.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma using eIF4GI Antibody in the presence of control peptide (upper) or antigen-specific peptide (lower).