Revision 4

Store at -20C

#8701

eIF4GI (D6A6) Rabbit mAb

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, IHC-P	H M R	Endogenous	220	Rabbit IgG	#Q04637	1981

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50
Immunohistochemistry (Paraffin)	1:200 - 1:800

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.

Specificity/Sensitivity

eIF4GI (D6A6) Rabbit mAb recognizes endogenous levels of total eIF4GI protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val418 of human eIF4GI protein.

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).

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.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

W: Western Blotting **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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Limited Uses

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