

Rabbit EEF2 Polyclonal Antibody | anti-EEF2 antibody

EEF2 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326560	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

EEF2; Polyclonal Antibody; EEF2 Antibody; EEF 2; Eef2; EF-2; EF2; EF2_HUMAN; Elongation factor 2; Eukaryotic translation elongation factor 2; Polypeptidyl tRNA translocase; SCA26; anti-EEF2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	EEF2 antibody detects endogenous levels of total EEF2
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	858
Applicable Applications for anti-EEF2 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human EEF2
Subcellular Location	Cytoplasm.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemisry)

AAA326560 at 1/100 staining Human brain tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)

Western blot analysis of extracts of HeLa Jurkat, using EEF2 antibody. The lane on the left is treated with the antigen-specific peptide.



IF (Immunofluorescence)

AAA326560 staining NIH-3T3 cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-EEF2 antibody	Description: Eukaryotic elongation factor 2 (eEF2) catalyzes the translocation of peptidyl-tRNA from the A site to the P site on the ribosome. It has been shown that phosphorylation of eEF2 at threonine 56 by eEF2 kinase inhibits its activity (1-4). eEF2 kinase is normally dependent on Ca2+ ions and calmodulin (5, 6). eEF2 kinase can also be activated by PKA in response to elevated cAMP levels (7-9), which are generally increased in stress-or starvation-related conditions. A variety of treatments known to raise intracellular Ca2+ or cAMP levels have been shown to result in increased phosphorylation of eEF2, and thus to inhibit peptide-chain elongation. The inactive phosphorylated eEF2 can be converted to its active nonphosphorylated form by a protein phosphatase, most likely a form of protein phosphatase-2A (PP-2A). Insulin, which activates protein synthesis in a wide range of cell types, induces rapid dephosphorylation of eEF2 through mTOR signaling and may involve modulation of the activity of the PP-2A or the eEF2 kinase or both (10). Function: Catalyzes the GTP-dependent ribosomal translocation step during translation elongation. During this step, the ribosome changes from the pre-translocational (PRE) to the post-translocational (POST) state as the newly formed A-site-bound peptidyl-tRNA and P-site-bound deacylated tRNA move to the P and E sites, respectively. Catalyzes the coordinated movement of the two tRNA molecules, the mRNA and conformational changes in the ribosome. Subunit Structure: Component of the mRNA surveillance SURF complex, at least composed of ERF1, ERF3 (ERF3A or ERF3B), EEF2, UPF1/RENT1, SMG1, SMG8 and SMG9 (PubMed:19417104). Interacts with RBPMS2 (PubMed:25064856). Post-translational Modifications: Phosphorylation by EF-2 kinase completely inactivates EF-2; it requires prior phosphorylation by CDK2 at Ser-595 during mitotic prometaphase. Phosphorylation by CSK promotes SUMOylation, proteolytic cleavage, and nuclear translocation if the C-terminal fragment. Diphthamide is 2-[3-carboxyamido-3-(trimethyl-ammonio)propyl]histidine. Diphthamide can be ADP-ribosylated by diphtheria toxin and by Pseudomonas exotoxin A, thus arresting protein synthesis (By similarity). ISGylated. Proteolytically processed at two sites following phosphorylation by CSK. Sumoylated following phosphorylation by CSK, promotes proteolytic cleavage. Similarity: Belongs to the TRAFAC class translation factor GTPase superfamily. Classic translation factor GTPase family. EF-G/EF-2 subfamily.
References	Deng Z, Luo P, Lai W, Song T, Peng J, Wei HK; Journal: Biochem Biophys Res Commun. Myostatin inhibits eEF2K-eEF2 by regulating AMPK to suppress protein synthesis.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4503483
NCBI GeneID	1938
NCBI Accession #	NP_001952.1
NCBI GenBank Nucleotide #	NM_001961.3
UniProt Accession #	P13639 ; Q58J86 ; B2RMP5 ; D6W618
Molecular Weight	Observed: 95 kDa Predicted: 96 kDa
NCBI Official Full Name	elongation factor 2
NCBI Official Synonym Full Names	eukaryotic translation elongation factor 2
NCBI Official Symbol	EEF2

NCBI Official Synonym Symbols	EF2; EF-2; EEF-2; SCA26
NCBI Protein Information	elongation factor 2
UniProt Protein Name	Elongation factor 2
UniProt Gene Name	EEF2
UniProt Synonym Gene Names	EF2; EF-2

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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