

Rabbit eEF2K Polyclonal Antibody | anti-eEF2K antibody

eEF2K (Ser-500), phospho-specific Antibody

CATALOG # AAA71634	HOST Rabbit	REACTIVITY Human, Rat, Mouse	APPLICATIONS ELISA, Western Blot
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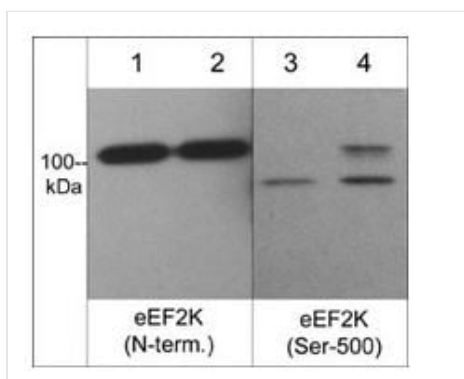
PRODUCT SYNONYMS

eEF2K; Polyclonal Antibody; eEF2K (Ser-500); phospho-specific Antibody; phospho-specific; eEF2K 500; anti-eEF2K antibody

PRODUCT SPECIFICATIONS

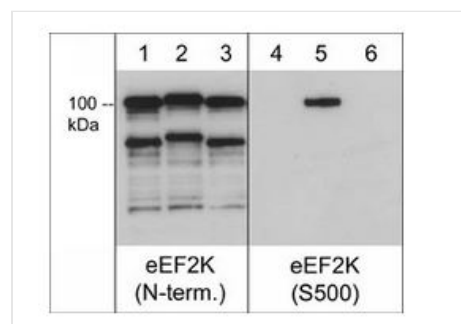
Host	Rabbit
Reactivity	Human, Rat, Mouse
Clonality	Polyclonal
Specificity	The antibody was affinity purified using phospho-eEF2K (Ser-500) peptide (without carrier). The antibody detects a 105kDa* protein corresponding to the molecular mass of eEF2K on SDS-PAGE immunoblots of human recombinant eEF2K autophosphorylated in the presence of Ca ²⁺ and Calmodulin. This reactivity is removed after lambda phosphatase treatment. In addition, the antibody detects eEF2K after calyculin A treatment of mouse C2C12 cells, but not in control cells.
Form/Format	Rabbit polyclonal, affinity-purified antibody is supplied in 100ul phosphate-buffered saline, 50% glycerol, 1mg/ml BSA, and 0.05% sodium azide.
Applicable Applications for anti-eEF2K antibody	ELISA, WB (Western Blot)
Immunogen	Phospho-eEF2K (Ser-500) synthetic peptide (coupled to carrier protein) corresponds to amino acids surrounding Ser-500 in human eEF2K. This sequence is well conserved in rat and mouse eEF2K, and has low homology to other proteins.
Preparation and Storage	Store at -20 degree C. Stable for 1 year.

IMAGES



WB (Western Blot)

Western blot image of C2C12 untreated (lanes 1 & 3) or treated with calyculin A (100nM) for 30 min. (lanes 2 & 4). The blot was probed with anti-eEF2K (N-terminus) (lanes 1 & 2) and anti-eEF2K (Ser-500) (lanes 3 & 4).



Application Data

Recombinant human eEF2K untreated (lanes 1 & 4), auto-phosphorylated in the presence of Ca²⁺ and Calmodulin (lanes 2 & 5), and dephosphorylated with lambda phosphatase (lanes 3 & 6). The blots were probed with rabbit polyclonal anti-eEF2K (N-terminus) (lanes 1-3) or anti-eEF2K (Ser-500) (lanes 4-6). (Images provided by the laboratory of Dr. Kevin Dalby in the Dept. of Pharmacy at the University of Texas at Austin).

ADDITIONAL INFORMATION

Related Product Information for anti-eEF2K antibody	Eukaryotic elongation factor 2 (eEF2) catalyzes the translocation of peptidyl-tRNA from the A site to the P site on the ribosome. eEF2 kinase (eEF2K) phosphorylates and inactivates eEF2, resulting in the inhibition of peptide-chain elongation. eEF2K is normally dependent on Ca2+ ions and calmodulin, and can be activated by PKA in response to elevated cAMP levels during cell stress- or starvation-related conditions. Regulation of eEF2K occurs through phosphorylation at multiple sites. Ser-78 phosphorylation is required for calmodulin binding and eEF2K activity, while phosphorylation of Ser-500 is required for Ca2+/calmodulin-independent kinase activity. Thr-348 is an autophosphorylation site that is required for kinase activity. Inhibitory phosphorylation may also regulate eEF2K, since phosphorylation at Ser-359 by SAPK4/p38delta causes inactivation of eEF2K. Thus, multisite phospho-regulation of eEF2K may be important for proper control of eEF2K activity and protein translation.
References	Smith, E.M. & Proud, C.G. (2008) EMBO J. 27(7):1005. Diggle, T.A., et al. (2001) Biochem J. 353(3):621. Ryazanov, A.G. et al. (1997) Proc Natl Acad Sci. USA. 94:4884.

NCBI AND UNIPROT INFORMATION

NCBI GI #	9558749
NCBI GeneID	29904
NCBI Accession #	NP_037434.1
NCBI GenBank Nucleotide #	NM_013302.3
UniProt Accession #	O00418; Q8N588
Molecular Weight	82,144 Da
NCBI Official Full Name	eukaryotic elongation factor 2 kinase
NCBI Official Synonym Full Names	eukaryotic elongation factor-2 kinase
NCBI Official Symbol	EEF2K
NCBI Official Synonym Symbols	eEF-2K; HSU93850
NCBI Protein Information	eukaryotic elongation factor 2 kinase; eEF-2 kinase; elongation factor-2 kinase; eukaryotic elongation factor 2 kinase; calmodulin-dependent protein kinase III; calcium/calmodulin-dependent eukaryotic elongation factor 2 kinase; calcium/calmodulin-depende
UniProt Protein Name	Eukaryotic elongation factor 2 kinase
UniProt Gene Name	EEF2K
UniProt Synonym Gene Names	eEF-2 kinase; eEF-2K
UniProt Entry Name	EF2K_HUMAN

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.