

## Rabbit eEF2K Polyclonal Antibody | anti-eEF2K antibody

eEF2K (Ser-500), phospho-specific Antibody

|                              |                       |                                        |                                            |
|------------------------------|-----------------------|----------------------------------------|--------------------------------------------|
| CATALOG #<br><b>AAA71634</b> | HOST<br><b>Rabbit</b> | REACTIVITY<br><b>Human, Rat, Mouse</b> | APPLICATIONS<br><b>ELISA, Western Blot</b> |
|------------------------------|-----------------------|----------------------------------------|--------------------------------------------|

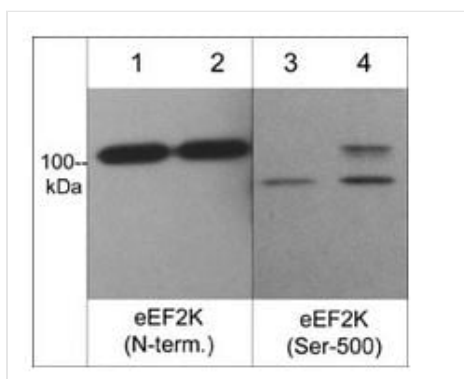
### PRODUCT SYNONYMS

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

### PRODUCT SPECIFICATIONS

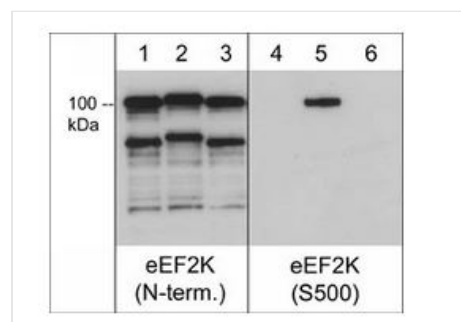
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|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 <sup>2+</sup> 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 Ca<sup>2+</sup> 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

|                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Related Product Information for anti-eEF2K antibody</b> | 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 Ca <sup>2+</sup> 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 Ca <sup>2+</sup> /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 phosphoregulation of eEF2K may be important for proper control of eEF2K activity and protein translation. |
| <b>References</b>                                          | Smith, E.M. & Proud, C.G. (2008) EMBO J. 27(7):1005.<br>Diggle, T.A., et al. (2001) Biochem J. 353(3):621.<br>Ryazanov, A.G. et al. (1997) Proc Natl Acad Sci. USA. 94:4884.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

## NCBI AND UNIPROT INFORMATION

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

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Online datasheet: <https://www.aaabiotech.com/polyclonal/eef2k-antibody-western-blot-elisa/71634>