

**Anti-eEF2K (Ser-359), Phosphospecific Antibody**  
**Catalog # AN1764****Specification****Anti-eEF2K (Ser-359), Phosphospecific Antibody - Product Information**

|                   |                          |
|-------------------|--------------------------|
| Primary Accession | <a href="#">O00418</a>   |
| Reactivity        | <b>Bovine</b>            |
| Host              | <b>Rabbit</b>            |
| Clonality         | <b>Rabbit Polyclonal</b> |
| Isotype           | <b>IgG</b>               |
| Calculated MW     | <b>82144</b>             |

**Anti-eEF2K (Ser-359), Phosphospecific Antibody - Additional Information**Gene ID **29904****Other Names**

eEF-2, eEF-2K, CaMK-III, eukaryotic elongation factor

**Target/Specificity**

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/p38 $\delta$  causes inactivation of eEF2K. Thus, multisite phospho-regulation of eEF2K may be important for proper control of eEF2K activity and protein translation.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Anti-eEF2K (Ser-359), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Shipping**

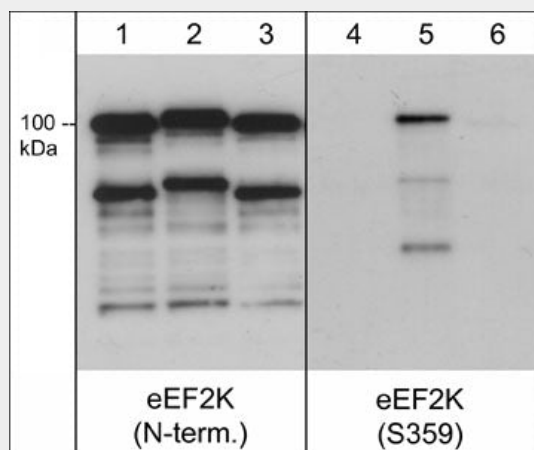
Blue Ice

**Anti-eEF2K (Ser-359), Phosphospecific Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)

- ### **Anti-eEF2K (Ser-359), Phosphospecific Antibody - Images**



Recombinant human eEF2K untreated (lanes 1 and 4) and phosphorylated with p38 kinase in vitro (lanes 2 & 5). After in vitro reaction, the eEF2K was 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-359) (lanes 4-6). (Images provided by the laboratory of Dr. Kevin Dalby in the Dept. of Pharmacy at the University of Texas at Austin.)

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/p38 $\delta$  causes inactivation of eEF2K. Thus, multisite phospho-regulation of eEF2K may be important for proper control of eEF2K activity and protein translation.