

Anti-eEF2K (C-terminus) Antibody
Catalog # AN1761**Specification****Anti-eEF2K (C-terminus) Antibody - Product Information**

Application	WB, IHC
Primary Accession	O00418
Reactivity	Bovine, Chicken, Drosophila, C.Elegans
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	82144

Anti-eEF2K (C-terminus) Antibody - Additional InformationGene 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 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.

Dilution

WB~~1:1000

IHC~~1:100~500

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 (C-terminus) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping

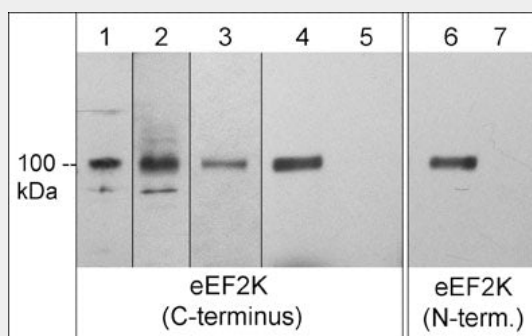
Blue Ice

Anti-eEF2K (C-terminus) Antibody - Protocols

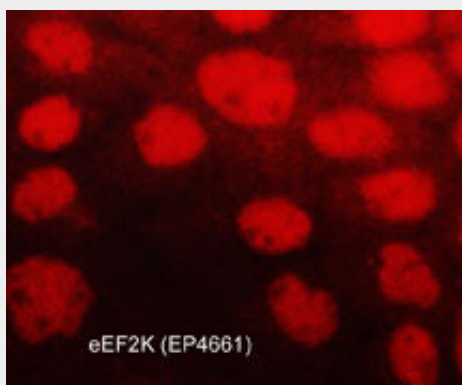
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-eEF2K (C-terminus) Antibody - Images



Western blot image of eEF2K in human A431 (lane 1), Jurkat (lane 2), and HeLa (lane 3) cells, and immunoprecipitation of eEF2K from HeLa cell lysate using anti-eEF2K (C-terminus) antibody (lanes 4 & 6). Negative control immunoprecipitations with no antibody are shown in lane 5 and 7. The blots were probed with anti-eEF2K (C-terminus) (lanes 1-5) or with anti-eEF2K (N-terminal) antibody (lanes 6 & 7).



Immunocytochemical labeling of eEF2K in paraformaldehyde fixed and NP-40 permeabilized A431 cells. The cells were labeled with rabbit polyclonal anti-eEF2K (EP4661). The antibody was detected using goat anti-rabbit DyLight® 594.

Anti-eEF2K (C-terminus) Antibody - Background

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^{2+} 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^{2+} /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.