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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 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 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.

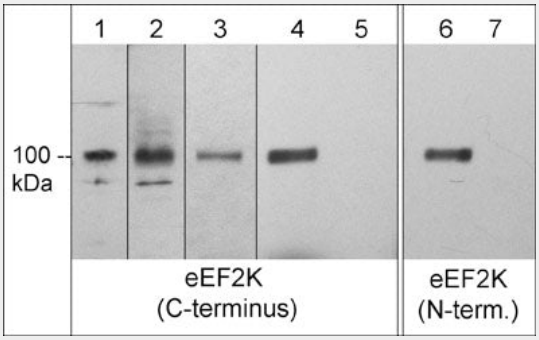
Shipping
Blue Ice

Anti-eEF2K (C-terminus) Antibody - Protocols

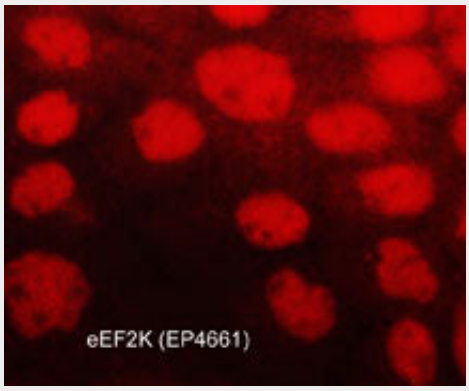
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- 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 immunopreciptations with no antibody are shown in lane 5 and 7. The blots were probed with anit-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 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.