



Rabbit Anti-Phospho-EEF2k (Ser359) antibody

SL13058R

Product Name:	Phospho-EEF2k (Ser359)
Chinese Name:	磷酸化真核延伸因子激酶2抗体
Alias:	EEF2K (phospho S359); p-EEF2K (phospho S359); Calcium/calmodulin dependent eukaryotic elongation factor 2; Calcium/calmodulin dependent eukaryotic elongation factor 2 kinase; Calmodulin dependent protein kinase III; cb365; eEF 2 kinase; eEF 2K; EEF2K protein; Elongation factor 2 kinase; Eukaryotic elongation factor 2 kinase; kinase eEF2K; SMEF2K; EF2K_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Horse,Rabbit,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	82kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human EEF2k around the phosphorylation site of Ser359:CG(p-S)P
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Eukaryotic elongation factor 2 kinase (EEF2k) previously known as Ca ²⁺ /calmodulin

dependent protein kinase III, is an abundant cytoplasmic protein highly specific for elongation factor 2 (eEF2). Phosphorylation of eEF2 by eEF2 kinase on specific threonine residues results in the inactivation of eEF-2 and in termination of mRNA translation. The activity of eEF2 kinase is not only dependent upon Ca²⁺ ions, calmodulin (CaM) and insulin, but is also regulated both negatively and positively via phosphorylation by different protein kinases (AMPK, S6K1, p90 RSK). There is also evidence that eEF-2 phosphorylation is involved in the regulation of cell cycle progression, cellular differentiation, oogenesis and malignant tumors.

Function:

Threonine kinase that regulates protein synthesis by controlling the rate of peptide chain elongation. Upon activation by a variety of upstream kinases including AMPK or TRM7, phosphorylates the elongation factor EEF2 at a single site, renders it unable to bind ribosomes and thus inactive. In turn, the rate of protein synthesis is reduced.

Subunit:

Monomer or homodimer.

Post-translational modifications:

Autophosphorylated at multiple residues, Thr-348 being the major site. Phosphorylated by AMP-activated protein kinase AMPK at Ser-398 leading to EEF2K activation and protein synthesis inhibition. Phosphorylated by TRPM7 at Ser-78 resulting in improved protein stability, higher EEF2 phosphorylated and subsequently reduced rate of protein synthesis. Phosphorylation by other kinases such as CDK1 and MAPK13 at Ser-359 or RPS6KA1 and RPS6KB1 at Ser-366 instead decrease EEF2K activity and promote protein synthesis.

Similarity:

Belongs to the protein kinase superfamily.
Alpha-type protein kinase family.
Contains 1 alpha-type protein kinase domain.

SWISS:

O00418

Gene ID:

101930123

Database links:

UniProtKB/Swiss-Prot: O00418.2

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.