10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

eEF2K Recombinant Rabbit mAb

Catalog # AP99564

Product Information

Application	WB, IHC-P, IHC-F, IF, IP, E
Primary Accession	O00418
Other Accession	O00418
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Recombinant
Calculated MW	82144
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	"Belongs to the protein kinase superfamily. Alpha-type protein kinase family. Contains 1 alpha-type protein kinase domain.
SUBUNIT	Monomer or homodimer.
Post-translational modifications	Autophosphorylated. 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 EE2F 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.
Background Descriptions	This gene encodes a highly conserved protein kinase in the calmodulin-mediated signaling pathway that links activation of cell surface receptors to cell division. This kinase is involved in the regulation of protein synthesis. It phosphorylates eukaryotic elongation factor 2 (EEF2) and thus inhibits the EEF2 function. The activity of this kinase is increased in many cancers and may be a valid target for anti-cancer treatment. [provided by RefSeq, Jul 2008],

Additional Information

Gene ID	29904
Other Names	CaMKIII; HSU93850; eEF-2K; SMEF2K; EF2K_HUMAN; EEF2K; eEF-2 kinase; Calcium/calmodulin-dependent eukaryotic elongation factor 2 kinase; 2.7.11.20; EF2K_MOUSE; EF2K_RAT; eukaryotic elongation factor 2 kinase
Dilution	IHC-P=1:50-200,IHC-F=1:50-200,WB=1:500-2000,IF=1:50-200,ELISA=1:5000-10000,IP=1:50-200
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. 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.

Protein Information

Name	EEF2K
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 TRPM7, 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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.