

Recombinant Rat Calcium,calmodulin-dependent protein kinase type IV(Camk4)

Catalog No: #AP70111

Package Size: #AP70111-1 20ug #AP70111-2 100ug #AP70111-3 1mg



SAB[®]
Signalway Antibody

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Description

Product Name	Recombinant Rat Calcium,calmodulin-dependent protein kinase type IV(Camk4)
Host Species	E.coli
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:1-474aaSequence Info:Full Length
Other Names	CaM kinase-GR;Calspermin
Accession No.	P13234
Calculated MW	57.2 kDa
Tag Info	N-terminal 6xHis-tagged
Target Sequence	MLKVTVPSCPSSPCSSVTSSSTENLVPDYWIDGSKRDPLSDFFEVESELGRGATSIVYRCKQKGTQKPYALKVL KKTVDKKIVRTEIGVLLRLSHPNIKLKEIFETPTEISLVLELVTGGELFDRIVEKGYYSERDAADAVKQILEAVAYL HENGIVHRDLKPENLLYATPAPDAPLKIADFGLSKIVEHQVLMKTVCGTPGYCAPEILRGCAYGPEVDMWVSVGI ITYILLCGFEPFYDERGDQFMFRRILNCEYYFISPPWWDEVSLNAKDLVKKLIVLDPKKRLTTFQALQHPWVTGK AANFVHMDTAQKKLQEFNARRKLKA AVKAVVASSRLGSASSSHTNIQESNKASSEAQPAQDGKD KTDPLENK MQAGDHEAAKAAADETMKLQSEEEVEEEGVKEEEEEEEEEETSRMVPQEPEDRLETDDQEMKRNSEETLK SVEEEMDPKAE EEEAAVGLGVPPQQDAILPEY
Formulation	Tris-based buffer50% glycerol
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C,-80°C. The shelf life of lyophilized form is 12 months at -20°C,-80°C.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Background

Isoform 1: Calcium,calmodulin-dependent protein kinase that operates in the calcium-triggered CaMKK-CaMK4 signaling cascade and regulates, mainly by phosphorylation, the activity of several transcription activators, such as CREB1, MEF2D, JUN and RORA, which play pivotal roles in immune response, inflammation, and mory consolidation. In the thymus, regulates the CD4+,CD8+ double positive thymocytes selection threshold during T-cell ontogeny. In CD4 mory T-cells, is required to link T-cell antigen receptor (TCR) signaling to the production of IL2, IFNG and IL4 (through the regulation of CREB and MEF2). Regulates the differentiation and survival phases of osteoclasts and dendritic cells (DCs). Mediates DCs survival by linking TLR4 and the regulation of tporal expression of BCL2. Phosphorylates the transcription activator CREB1 on 'Ser-133' in hippocampal neuron nuclei and contribute to mory consolidation and long term potentiation (LTP) in the hippocampus. Can activate the MAP kinases MAPK1,ERK2, MAPK8,JNK1 and MAPK14,p38 and stimulate transcription through the phosphorylation of ELK1 and ATF2. Can also phosphorylate in vitro CREBBP, PRM2, MEF2A and STMN1,OP18 .Isoform 2: Heat-stable, acidic, calmodulin-binding protein.

References

Catalytic activity is required for calcium,calmodulin-dependent protein kinase IV to enter the nucleus.Lemrow S.M., Anderson K.A., Joseph J.D., Ribar T.J., Noeldner P.K., Means A.R.J. Biol. Chem. 279:11664-11671(2004) Research Topic:Others

Note: This product is for in vitro research use only and is not intended for use in humans or animals.