





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

| Product Code   | CSB-EP004471RA   |
|----------------|--|
| Relevance      | 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. |
| 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.  |
| Uniprot No.    | P13234   |
| Storage Buffer | Tris-based buffer,50% glycerol   |
| Alias          | CaM kinase-GR;Calspermin   |
| Product Type   | Recombinant Protein  |
| Species        | Rattus norvegicus (Rat)  |
| Purity         | Greater than 90% as determined by SDS-PAGE.  |
| Sequence       | MLKVTVPSCPSSPCSSVTSSTENLVPDYWIDGSKRDPLSDFFEVESELGRGAT SIVYRCKQKGTQKPYALKVLKKTVDKKIVRTEIGVLLRLSHPNIIKLKEIFETPTEI SLVLELVTGGELFDRIVEKGYYSERDAADAVKQILEAVAYLHENGIVHRDLKPE NLLYATPAPDAPLKIADFGLSKIVEHQVLMKTVCGTPGYCAPEILRGCAYGPEV DMWSVGIITYILLCGFEPFYDERGDQFMFRRILNCEYYFISPWWDEVSLNAKDL VKKLIVLDPKKRLTTFQALQHPWVTGKAANFVHMDTAQKKLQEFNARRKLKAA VKAVVASSRLGSASSSHTNIQESNKASSEAQPAQDGKDKTDPLENKMQAGDH EAAKAAADETMKLQSEEVEEEEGVKEEEEEEEEEETSRMVPQEPEDRLETD DQEMKRNSEETLKSVEEEMDPKAEEEAAAVGLGVPPQQDAILPEY  |
| Research Area  | Others   |
| Source         | E.coli   |



## **CUSABIO TECHNOLOGY LLC**

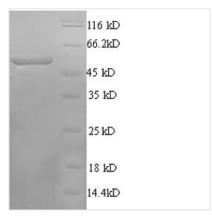






| Gene Names                 | Camk4   |
|----------------------------|---|
| <b>Expression Region</b>   | 1-474aa   |
| Notes                      | Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week. |
| Tag Info                   | N-terminal 6xHis-tagged   |
| Mol. Weight                | 57.2kDa   |
| <b>Protein Description</b> | Full Length   |
| lue e e e                  |   |

**Image** 



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.