

Bioactive

Full-Length

CAMK2A (Human) Recombinant Protein

Catalog # P6476

Size 5 ug

Applications

Result of activity analysis

Result of activity analysis



Specification

Product Description	Human CAMK2A (NP_741960.1, 1 a.a. - 478 a.a.) full length recombinant protein with GST-tag at N-terminal using baculovirus expression system.
Host	Viruses
Form	Liquid
Preparation Method	Baculovirus expression system.
Purification	Glutathione sepharose chromatography.
Purity	0.77
Activity	The activity was measured by off-chip mobility shift assay. The enzyme was incubated with fluorescein-labeled substrate, Mg (or Mn)/ATP, and Ca/Calmodulin. Substrate: GS peptide, ATP: 100 uM.
Quality Control Testing	The purity was assessed by SDS-PAGE/CBB staining.
Storage Buffer	50 mM Tris-HCl, 150 mM NaCl, 0.1% CHAPS, 1 mM DTT, 10% glycerol, pH 7.5
Storage Instruction	Stored at -80°C. Aliquot to avoid repeated freezing and thawing.

Note

Result of activity analysis
Result of activity analysis

Applications

- Functional Study

Gene Info — CAMK2A

Entrez GeneID [815](#)

Protein Accession# [NP_741960.1](#)

Gene Name CAMK2A

Gene Alias CAMKA, KIAA0968

Gene Description calcium/calmodulin-dependent protein kinase II alpha

Omim ID [114078](#)

Gene Ontology [Hyperlink](#)

Gene Summary The product of this gene belongs to the serine/threonine protein kinases family, and to the Ca(2+)/calmodulin-dependent protein kinases subfamily. Calcium signaling is crucial for several aspects of plasticity at glutamatergic synapses. This calcium calmodulin-dependent protein kinase is composed of four different chains: alpha, beta, gamma, and delta. The alpha chain encoded by this gene is required for hippocampal long-term potentiation (LTP) and spatial learning. In addition to its calcium-calmodulin (CaM)-dependent activity, this protein can undergo autophosphorylation, resulting in CaM-independent activity. Two transcript variants encoding distinct isoforms have been identified for this gene. [provided by RefSeq]

Other Designations CaM kinase II alpha subunit|CaM-kinase II alpha chain|CaMK-II alpha subunit|CaMKIIalpha|OTTHUMP00000165787|OTTHUMP00000165788|calcium/calmodulin-dependent protein kinase (CaM kinase) II alpha|calcium/calmodulin-dependent protein kinase II alpha-B subunit

Pathway

- [Calcium signaling pathway](#)
- [ErbB signaling pathway](#)
- [Glioma](#)

- [GnRH signaling pathway](#)
- [Long-term potentiation](#)
- [Melanogenesis](#)
- [Neurotrophin signaling pathway](#)
- [Olfactory transduction](#)
- [Wnt signaling pathway](#)

Disease

- [Bipolar Disorder](#)
- [Cognition](#)
- [Genetic Predisposition to Disease](#)
- [Schizophrenia](#)
- [Schizophrenic Psychology](#)
- [Tobacco Use Disorder](#)
- [Weight Gain](#)