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CAM Kinase II (Active)

Alternate names: CAMK II

Catalog No.: AR00166PU-N

Quantity: 500 U

Concentration: Lot specific

Background: Ca2+/calmodulin-dependent protein kinase II (CaM Kinase II) is a multi-functional calcium and calmodulin-dependent protein kinase that mediates cellular responses to a wide variety of intercellular signals. CaM Kinase II has been shown to regulate diverse cellular functions including synaptic plasticity, neurotransmitter synthesis and release, gene expression, ion channel function, carbohydrate metabolism, cytoskeletal function, and Ca2+-homeostasis.

Species: Rat

Source: Brain

Format: **Purity:** Purified

Applications: Enzyme activity assay standard Optimal concentration should be evaluated by serial dilutions.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

General Readings:

1. Gleason MR, Higashijima S, Dallman J, Liu K, Mandel G, Fetcho JR. Translocation of CaM kinase II to synaptic sites in vivo. Nat Neurosci. 2003 Mar;6(3):217-8. PubMed PMID: 12563265.
2. Hudmon A, Schulman H. Neuronal CA2+/calmodulin-dependent protein kinase II: the role of structure and autoregulation in cellular function. Annu Rev Biochem. 2002;71:473-510. Epub 2001 Nov 9. PubMed PMID: 12045104.
3. Kennedy MB. Signal transduction molecules at the glutamatergic postsynaptic membrane. Brain Res Brain Res Rev. 1998 May;26(2-3):243-57. PubMed PMID: 9651538.
4. Schulman H, Hanson PI. Multifunctional Ca2+/calmodulin-dependent protein kinase. Neurochem Res. 1993 Jan;18(1):65-77. PubMed PMID: 8385278.
5. Soderling TR. CaM-kinases: modulators of synaptic plasticity. Curr Opin Neurobiol. 2000 Jun;10(3):375-80. PubMed PMID: 10851169.