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Anti-CaM Kinase II (Thr306) Antibody

Our Anti-CaM Kinase II (Thr306) rabbit polyclonal phosphospecific primary antibody from PhosphoSolut
Catalog # AN1326

Product Information

Application	WB
Primary Accession	P11310
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	46588

Additional Information

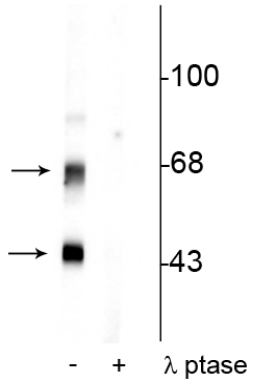
Gene ID	34
Other Names	Calcium/calmodulin dependent protein kinase II alpha antibody, Calcium/calmodulin dependent protein kinase II beta antibody, Calcium/calmodulin dependent protein kinase II delta antibody, Calcium/calmodulin dependent protein kinase II gamma antibody, Calcium/calmodulin-dependent protein kinase type II subunit alpha antibody, CaM kinase II alpha antibody, CaM kinase II antibody, CaM kinase II beta antibody, CaM kinase II delta antibody, CaM kinase II gamma antibody, CaM kinase II subunit alpha antibody, CaMK-II subunit alpha antibody, CAMK2 antibody, Camk2a antibody, CAMK2B antibody, CAMK2D antibody, CAMK2G antibody, CAMKA antibody, KCC2A_HUMAN antibody
Target/Specificity	Ca2+/Calmodulin-Dependent Protein Kinase II (CaM Kinase II) is a multifunctional calcium and calmodulin-dependent protein kinase that mediates cellular responses to a wide variety of intercellular signals (Kennedy, 1998; Schulman and Hanson, 1993). 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 (Gleason et al., 2003; Soderling, 2000; Hudmon and Schulman, 2002). Phosphorylation of Thr-286 on the kinase produces an autonomously active form of CaM Kinase II (Meng et al., 2003; Picciotto et al., 1993). CaMKIIα autophosphorylation at Thr-286 and Thr-305/Thr-306 has recently been shown to regulate kinase activity and modulate subcellular targeting and is critical for normal synaptic plasticity and learning and memory (Baucum et al., 2015).
Dilution	WB~~1:1000
Format	Antigen Affinity Purified from Pooled Serum
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions	Anti-CaM Kinase II (Thr306) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
Shipping	Blue Ice

Background

Ca2+/Calmodulin-Dependent Protein Kinase II (CaM Kinase II) is a multifunctional calcium and calmodulin-dependent protein kinase that mediates cellular responses to a wide variety of intercellular signals (Kennedy, 1998; Schulman and Hanson, 1993). 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 (Gleason et al., 2003; Soderling, 2000; Hudmon and Schulman, 2002). Phosphorylation of Thr-286 on the kinase produces an autonomously active form of CaM Kinase II (Meng et al., 2003; Picciotto et al., 1993). CaMKIIα autophosphorylation at Thr-286 and Thr-305/Thr-306 has recently been shown to regulate kinase activity and modulate subcellular targeting and is critical for normal synaptic plasticity and learning and memory (Baucum et al., 2015).

Images



Western blot of rat brain lysate showing specific immunolabeling of the ~50 kDa α- and the ~60 kDa β-CaM Kinase II phosphorylated at Thr306 in the first lane (-). Phosphospecificity is shown in the second lane (+) where the immunolabeling is completely eliminated by lysate treatment with lambda phosphatase (λ-Ptase, 800 units/1mg protein for 30 minutes).

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