10320 Camino Santa Fe, Suite G
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CaM Kinase II (Thr306) Antibody
Rabbit Polyclonal Antibody
Catalog # AN1260

Specification

CaM Kinase II (Thr306) Antibody - Product Information

Application	**WB**
Primary Accession	P11310
Reactivity	**Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**46588**

CaM Kinase II (Thr306) Antibody - Additional Information

Gene ID	**25400**
Gene Name	**CAMK2A/B**

Target/Specificity
Synthetic phospho-peptide corresponding to amino acid residues surrounding Thr306 conjugated to KLH

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
CaM Kinase II (Thr306) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping
Blue Ice

CaM Kinase II (Thr306) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation

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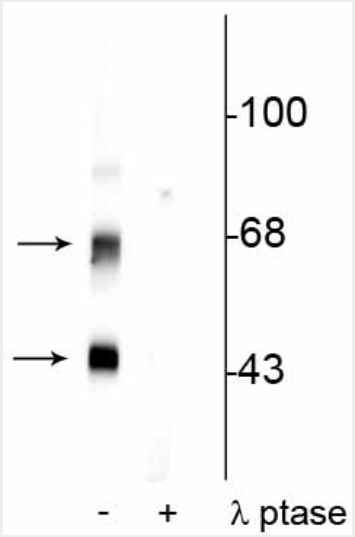
- Flow Cytomety
- Cell Culture

CaM Kinase II (Thr306) Antibody - 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).

CaM Kinase II (Thr306) Antibody - Background

Ca 2+/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 Thr286 on the kinase produces an autonomously active form of CaM Kinase II (Meng et al., 2003; Picciotto et al., 1993). CaMKIIα autophosphorylation at Thr286 and Thr305/Thr306 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).