Anti-Ca2+/Calmodulin Kinase II (aa 7-20) polyclonal antibody (DPAB2950)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview
Recognizes the ~60 kDa CaM kinase II protein in rat brain and liver and in mouse brain. As the sequences of rat α-, γ-, and δ-isoforms are conserved over this amino terminal region, this antibody may recognize all three of these isoforms.

Specificity
Mouse, rat

Immunogen
a synthetic peptide (CTRFTDEYQLFEEL) corresponding to amino acids 7-20 of rat multi-functional calmodulin-dependent kinase II δ-isoform, conjugated to KLH

Isotype
IgG

Source/Host
Rabbit

Species Reactivity
Rat

Conjugate
Unconjugated

Applications
WB

Format
Liquid. In 100 mM Tris-glycine, pH 7.0

Storage
-20°C. Avoid freeze/thaw

BACKGROUND

Introduction
Ca2+/calmodulin-dependent protein kinases II or CaM kinases II are serine/threonine-specific protein kinases that are regulated by the Ca2+/calmodulin complex. CaMKII is involved in many signaling cascades and is thought to be an important mediator of learning and memory. CaMKII is also necessary for Ca2+homeostasis and reuptake in cardiomyocytes chloride transport in epithelia, positive T-cell selection, and CD8 T-cell activation. Misregulation of CaMKII is linked to Alzheimer's disease, Angelman's syndrome, and heart arrhythmia. Calcium/calmodulin-dependent protein kinase II (CaMKII) is an enzyme that accounts for 1-2% of all of the proteins in the brain. This kinase can exist as 28 different isoforms. The isoforms of CaMKII derive from the alpha, beta, gamma, and delta genes.