

## Product datasheet for **AP08911PU-N**

### **CAMK2A pThr286 Rabbit Polyclonal Antibody**

#### **Product data:**

<b>Product Type:</b>	Primary Antibodies
<b>Applications:</b>	IHC, WB
<b>Recommended Dilution:</b>	<b>Immunohistochemistry on Paraffin Sections:</b> 1/200. <b>Western Blot:</b> 1/1000.
<b>Reactivity:</b>	Human, Mouse, Rat, Xenopus
<b>Host:</b>	Rabbit
<b>Isotype:</b>	IgG
<b>Clonality:</b>	Polyclonal
<b>Immunogen:</b>	Phosphopeptide corresponding to amino acid residues surrounding the phosphoThr286 found in Rat brain CaM Kinase II.
<b>Specificity:</b>	This antibody recognizes Calcium/Calmodulin-dependent Protein Kinase Type II (CAMK2). Specific for the ~50k a-CaM Kinase II and the ~60k R-CaM Kinase II proteins phosphorylated at Thr286. Immunolabeling is blocked by the X-phosphatase treatment.
<b>Formulation:</b>	10mM HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% Glycerol State: Aff - Purified State: Liquid Purified Ig fraction
<b>Purification:</b>	Immunoaffinity Chromatography
<b>Conjugation:</b>	Unconjugated
<b>Storage:</b>	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
<b>Stability:</b>	Shelf life: one year from despatch.
<b>Gene Name:</b>	calcium/calmodulin dependent protein kinase II alpha
<b>Database Link:</b>	<u><a href="#">Entrez Gene 12322 Mouse</a></u> <u><a href="#">Entrez Gene 25400 Rat</a></u> <u><a href="#">Entrez Gene 815 Human</a></u> <u><a href="#">Q9UQM7</a></u>



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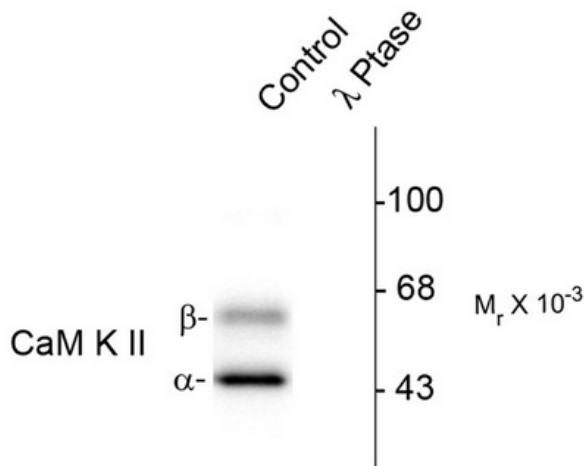
**Background:** CaMKII (Calcium/calmodulin-dependent protein kinase II) is a ubiquitous serine/threonine protein kinase that is abundant in the brain as a major constituent of the postsynaptic density (PSD). The enzyme is an oligomeric protein composed of distinct but related subunits, alpha, beta, gamma, and delta, each encoded by a separate gene. CAMK2A assembles into heterooligomeric complexes with other CAMK2 subunits. CaMKII is a prominent kinase in the central nervous system that may function in long term potentiation and neurotransmitter release.

**Synonyms:** CAMK2A, CAMK2B, CAMKA, KIAA0968, CaM-kinase II alpha chain, CaM kinase II subunit alpha, CaMK-II subunit alpha, CaM-kinase II beta chain, CaM kinase II subunit beta, CaMK-II subunit beta

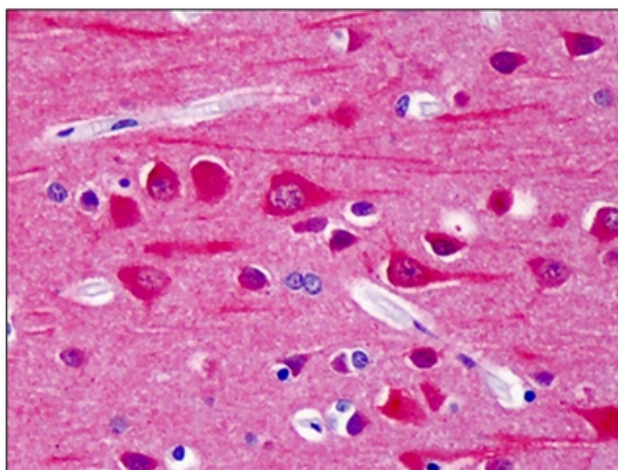
**Protein Families:** Druggable Genome, Protein Kinase

**Protein Pathways:** Calcium signaling pathway, ErbB signaling pathway, Glioma, GnRH signaling pathway, Long-term potentiation, Melanogenesis, Neurotrophin signaling pathway, Olfactory transduction, Oocyte meiosis, Wnt signaling pathway

**Product images:**



Western blot of rat brain lysate showing specific immunolabeling of the ~50k a- and the ~60k b- CaM Kinase II phosphorylated at Thr286 (Control). The phosphospecificity of this labeling is shown in the second lane (lambda-phosphatase: I-Ptase). The blot is identical to the control except that it was incubated in I-Ptase (1200 units for 30 min) before being exposed to the Anti-Thr286 CaM Kinase II. The immunolabeling is completely eliminated by treatment with I-Ptase.



Human Brain, Cortex: Formalin-Fixed, Paraffin-Embedded (FFPE):