

## Product datasheet for **AP20855PU-M**

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

#### **Product data:**

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	<b>Western blot:</b> 1/500-1/1000. <b>Immunofluorescence:</b> 1/50-1/200. <b>Immunohistochemistry on Paraffin Sections:</b> 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic phosphopeptide derived from human CaMKII $\alpha$ around the phosphorylation site of Threonine 286.
Specificity:	This antibody detects endogenous levels of CaMKII $\alpha$ /delta protein only when phosphorylated at Thr286
Formulation:	Phosphate buffered saline (PBS), pH~7.2 State: Aff - Purified State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE) Preservative: 0.05% Sodium Azide
Concentration:	1.0 mg/ml
Purification:	Affinity Chromatography using epitope-specific immunogen
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 54 kDa
Gene Name:	calcium/calmodulin dependent protein kinase II alpha
Database Link:	<a href="#">Entrez Gene 815 Human Q9UQM7</a>



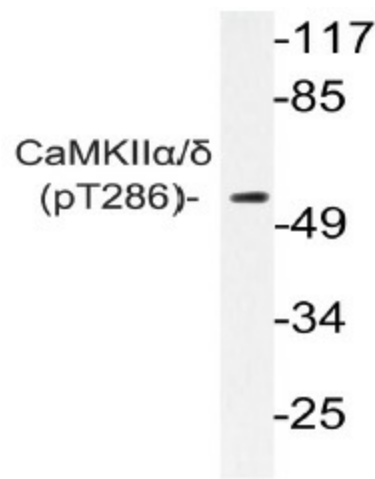
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**Background:**

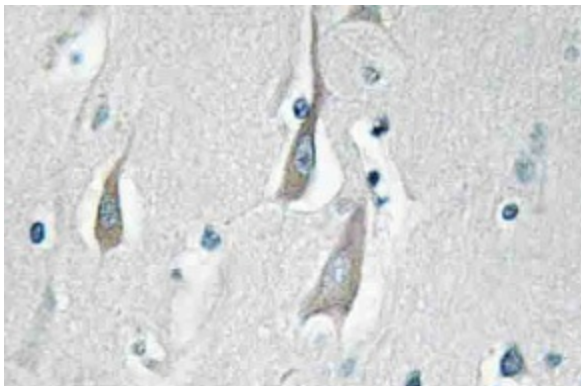
The  $\text{Ca}^{2+}$ /calmodulin-dependent protein kinases (CaM kinases) comprise a structurally related subfamily of serine/threonine kinases which include CaMKI, CaMKII and CaMKIV. CaMKII is an ubiquitously expressed serine/threonine protein kinase that is activated by  $\text{Ca}^{2+}$  and calmodulin (CaM) and has been implicated in regulation of the cell cycle and transcription. There are four CaMKII isozymes, designated  $\alpha$ ,  $\beta$ ,  $\gamma$  and  $\delta$ , which may or may not be co-expressed in the same tissue type. CaMKII $\alpha$  is autophosphorylated on Thr286 upon the binding of the  $\text{Ca}^{2+}$ /CaM complex to the autoinhibitory domain of CaMKII. This process is called  $\text{Ca}^{2+}$ /CaM trapping, which is thought to be involved in the synaptic encoding of information.

**Synonyms:**

CAMKA, KIAA0968, CaM-kinase II alpha chain, CaM kinase II subunit alpha, CaMK-II subunit alpha

**Product images:**


Western blot (WB) analyzes of p-CaMKIIalpha/delta antibody in extracts from K562 cells.



Immunohistochemistry (IHC) analyzes of p-CaMKIIalpha/delta antibody in paraffin-embedded human brain tissue.