

Product datasheet for **AP20970PU-N**

CAMK2A Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	Western blot: 1/500 - 1/1000. Immunohistochemistry on paraffin sections 1/50 - 1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of CaMK2-a protein. (region surrounding Lys292)
Formulation:	Phosphate buffered saline (PBS), pH 7.2. State: Aff - Purified State: Liquid purified Ig fraction Preservative: 0.05% sodium azide
Concentration:	1.0 mg/ml
Purification:	Affinity chromatography (> 95% (by SDS-PAGE)
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:	<u>Entrez Gene 815 Human</u> <u>Q9UQM7</u>



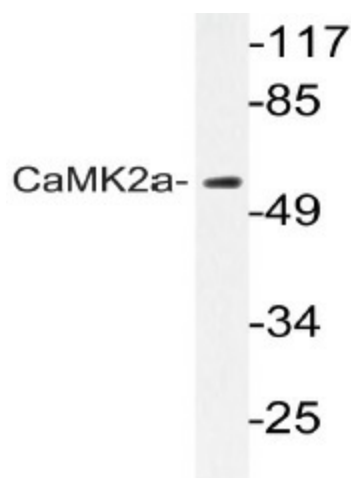
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Background:

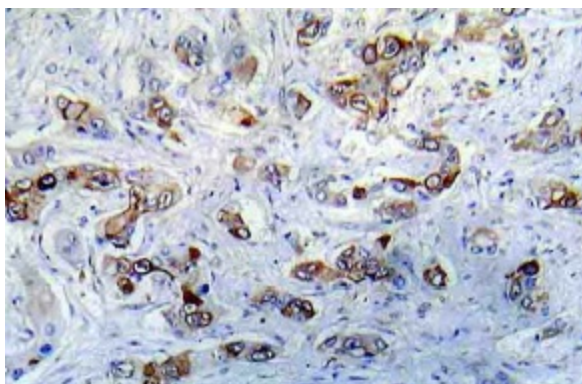
The multifunctional CAMK2, or Ca²⁺/calmodulin-dependent protein kinase II, is a well known effector of calcium- and calmodulin-mediated functions. It is present in many tissues but is most abundant in the brain. CAMK2 is composed of four different chains: alpha, beta, gamma, and delta. The different isoforms assemble into homo- or heteromultimeric holoenzymes composed of 8 to 12 subunits. Autophosphorylation plays an important role in the regulation of the kinase activity. CAMK2 is required for synaptic plasticity, as in Long Term Potentiation (LTP), a cellular model for learning and memory. CAMK2B is the beta chain. There are seven named isoforms produced by alternative splicing. The variable region of the CAMK2B protein is encoded by at least 7 exons (V1 to V7). Alternative splicing within this region gives rise to CAMK2B isoforms. CAMK2G is the gamma chain. CAMK2G has six alternatively spliced variants that encode six different isoforms. Some of these variants have been identified in human tumors.

Synonyms:

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

Product images:


Western blot (WB) analyzes of CaMK2-a antibody (Cat.-No.: AP20970PU-N) in extracts from A431 cells.



Immunohistochemistry (IHC) analyzes of CaMK2-a antibody (Cat.-No.: AP20970PU-N) in paraffin-embedded human A431 tissue.