

Product datasheet for **AP21111PU-N**

CAMK2B 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 CaMKIIbeta/gamma/delta protein. (region surrounding Ser280)
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:	~ 50, 65 kDa
Gene Name:	calcium/calmodulin dependent protein kinase II beta
Database Link:	<u>Entrez Gene 12323 Mouse</u> <u>Entrez Gene 24245 Rat</u> <u>Entrez Gene 816 Human</u> <u>Q13554</u>



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Background:

The Ca²⁺/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 Ca²⁺ 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 coexpressed in the same tissue type. CaMKIV is stimulated by Ca²⁺ and CaM but also requires phosphorylation by a CaMK for full activation. Stimulation of the T cell receptor CD3 signaling complex with an anti-CD3 monoclonal antibody leads to a 10–40-fold increase in CaMKIV activity. An additional kinase, CaMKK, functions to activate CaMKI through the specific phosphorylation of the regulatory threonine residue at position 177.

Synonyms:

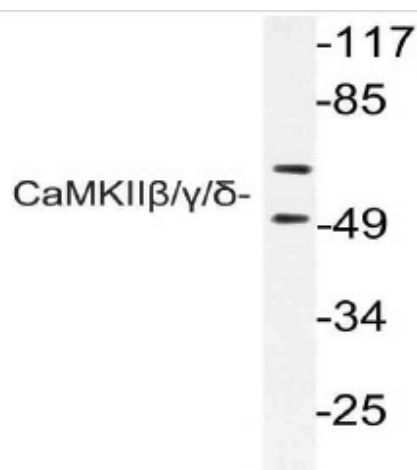
CAM2, CAMKB, CaM-kinase II beta chain, CaM kinase II subunit beta, CaMK-II subunit beta, CAMKIIB

Protein Families:

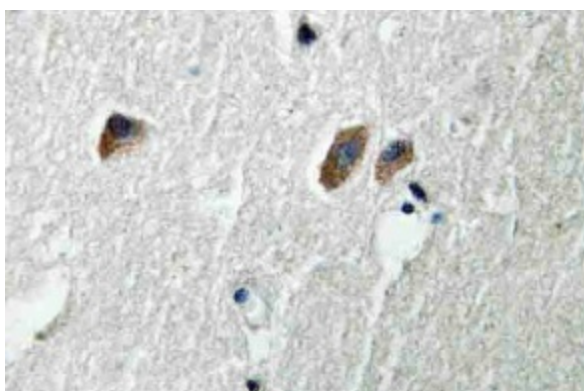
Druggable Genome, Protein Kinase

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 (WB) analysis of CaMKIIbeta/gamma/delta antibody (Cat.-No.: AP21111PU-N) in extracts from rat brain cells.



Immunohistochemistry (IHC) analyzes of CaMKIIbeta/gamma/delta antibody (Cat.-No.: AP21111PU-N) in paraffin-embedded human brain tissue.