

# CaMKII $\alpha$ / $\beta$ / $\delta$ (phospho Thr305) Polyclonal Antibody

Catalog # AP67211

## Product Information

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<b>Application</b>	WB, IHC-P, IF, ICC, E
<b>Primary Accession</b>	<a href="#">Q9UQM7</a> , <a href="#">Q13554</a> , <a href="#">Q13557</a>
<b>Reactivity</b>	Human, Mouse, Rat
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	54088

## Additional Information

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<b>Gene ID</b>	815
<b>Other Names</b>	CAMK2A; CAMKA; KIAA0968; Calcium/calmodulin-dependent protein kinase type II subunit alpha; CaM kinase II subunit alpha; CaMK-II subunit alpha; CAMK2B; CAM2; CAMK2; CAMKB; Calcium/calmodulin-dependent protein kinase type II subunit beta; Ca
<b>Dilution</b>	WB--Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/5000. Not yet tested in other applications. IHC-P--N/A IF--1:50~200 ICC--N/A E--N/A
<b>Format</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
<b>Storage Conditions</b>	-20°C

## Protein Information

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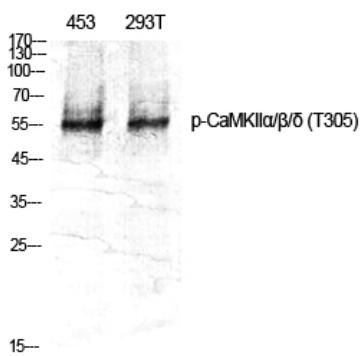
<b>Name</b>	CAMK2A
<b>Synonyms</b>	CAMKA, KIAA0968
<b>Function</b>	Calcium/calmodulin-dependent protein kinase that functions autonomously after Ca(2+)/calmodulin-binding and autophosphorylation, and is involved in various processes, such as synaptic plasticity, neurotransmitter release and long-term potentiation (PubMed: <a href="#">14722083</a> ). Member of the NMDAR signaling complex in excitatory synapses, it regulates NMDAR-dependent potentiation of the AMPAR and therefore excitatory synaptic transmission (By similarity). Regulates dendritic spine development (PubMed: <a href="#">28130356</a> ). Also regulates the migration of developing neurons (PubMed: <a href="#">29100089</a> ). Phosphorylates the transcription factor FOXO3 to activate its transcriptional activity (PubMed: <a href="#">23805378</a> ). Phosphorylates the transcription factor ETS1 in response to calcium signaling, thereby decreasing ETS1 affinity for DNA (By similarity). In response to interferon-gamma (IFN-gamma) stimulation, catalyzes

phosphorylation of STAT1, stimulating the JAK- STAT signaling pathway (PubMed:[11972023](#)). In response to interferon- beta (IFN-beta) stimulation, stimulates the JAK-STAT signaling pathway (PubMed:[35568036](#)). In response to interferon-gamma (IFN-gamma) stimulation, catalyzes phosphorylation of PSAT1, inhibiting ferroptosis by promoting GPX4 hydroxylation and stability (PubMed:[40281343](#)). Acts as a negative regulator of 2-arachidonoylglycerol (2-AG)-mediated synaptic signaling via modulation of DAGLA activity (By similarity).

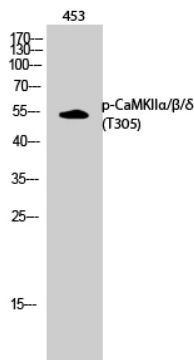
## Cellular Location

Synapse {ECO:0000250|UniProtKB:P11275}. Postsynaptic density {ECO:0000250|UniProtKB:P11275}. Cell projection, dendritic spine. Cell projection, dendrite. Note=Postsynaptic lipid rafts {ECO:0000250|UniProtKB:P11275}

## Images



Western Blot analysis of various cells using Phospho-CaMKIIα/β/δ (T305) Polyclonal Antibody diluted at 1 : 1000



Western Blot analysis of 453 cells using Phospho-CaMKIIα/β/δ (T305) Polyclonal Antibody diluted at 1 : 1000

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.