

Rabbit anti-Human CaMK2alpha/beta/delta Polyclonal Antibody | anti-CaMK2alpha/beta/delta antibody

CaMK2alpha/beta/delta (Phospho-Thr305) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA301671	Rabbit	Human	Immunohistochemistry, Western Blot

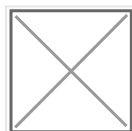
PRODUCT SYNONYMS

CaMK2alpha/beta/delta; Polyclonal Antibody; CaMK2alpha/beta/delta (Phospho-Thr305) Antibody; CaMK2a/b/d (Phospho-Thr305) Antibody; CAMK2A; KCC2A; kinase CaMK2-alpha; CaMKII-alpha; anti-CaMK2alpha/beta/delta antibody

PRODUCT SPECIFICATIONS

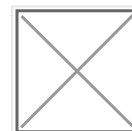
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Specificity	The antibody detects endogenous levels of CaMKII only when phosphorylated at threonine 305.
Purity/Purification	Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatography usi
Form/Format	Rabbit IgG in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1.0 mg/ml (varies by lot)
Sequence Length	478
Applicable Applications for anti-CaMK2alpha/beta/delta antibody	IHC (Immunohistochemistry), WB (Western Blot)
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around phosphorylation site of threonine 305 (I-L-T(p)-T-M) derived from Human CaMK2a/b/d.
Modification	Phospho-Thr305
Target Name	CaMK2a/b/d
Preparation and Storage	Store at -20 degree C/1 year

IMAGES



IHC (Immunohistochemistry)

Immunohistochemical analysis of paraffin-embedded human brain tissue using CaMKII (Phospho-Thr305) antibody (left) or the same antibody preincubated with blocking peptide (right).



WB (Western Blot)

Western blot analysis of extracts from 3T3 cells (Lane 2), using CaMK2a/b/d (Phospho-Thr305) Antibody. The lane on the left is treated with antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-CaMK2alpha/beta/delta antibody	Calcium/calmodulin-dependent protein kinase that functions autonomously after Ca2+/calmodulin-binding and autophosphorylation, and is involved in dendritic spine and synapse formation, neuronal plasticity and regulation of sarcoplasmic reticulum Ca2+ transport in skeletal muscle. In neurons, plays an essential structural role in the reorganization of the actin cytoskeleton during plasticity by binding and bundling actin filaments in a kinase-independent manner. This structural function is required for correct targeting of CaMK2A, which acts downstream of NMDAR to promote dendritic spine and synapse formation and maintain synaptic plasticity which enables long-term potentiation (LTP) and hippocampus-dependent learning. In developing hippocampal neurons, promotes arborization of the dendritic tree and in mature neurons, promotes dendritic remodeling. Participates in the modulation of skeletal muscle function in response to exercise. In slow-twitch muscles, is involved in regulation of sarcoplasmic reticulum (SR) Ca2+ transport and in fast-twitch muscle participates in the control of Ca2+ release from the SR through phosphorylation of triadin, a ryanodine receptor-coupling factor, and phospholamban (PLN/PLB), an endogenous inhibitor of SERCA2A/ATP2A2. Carl W. Tong, J. Physiol., Aug 2004; 558: 927 - 941. Pierre R, J. Biol. Chem., Sep 1997; 272: 24133.Daliang Wang, PNAS, Jun 1998; 95: 7133.
Product Categories/Family for anti-CaMK2alpha/beta/delta antibody	Phospho-specific Ab

NCBI AND UNIPROT INFORMATION

NCBI GI #	25952118
NCBI GeneID	815
NCBI Accession #	NP_741960.1
NCBI GenBank Nucleotide #	NM_171825.2
UniProt Accession #	Q9UQM7; Q9UL21; Q9Y2H4; Q9Y352
Molecular Weight	55,320 Da
NCBI Official Full Name	calcium/calmodulin-dependent protein kinase type II subunit alpha isoform 2
NCBI Official Synonym Full Names	calcium/calmodulin-dependent protein kinase II alpha
NCBI Official Symbol	CAMK2A
NCBI Official Synonym Symbols	CAMKA
NCBI Protein Information	calcium/calmodulin-dependent protein kinase type II subunit alpha
UniProt Protein Name	Calcium/calmodulin-dependent protein kinase type II subunit alpha
UniProt Gene Name	CAMK2A
UniProt Synonym Gene Names	CAMKA; KIAA0968; CaM kinase II subunit alpha; CaMK-II subunit alpha
UniProt Entry Name	KCC2A_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/camk2alpha-beta-delta-antibody-immunohistochemistry-western-blot-elisa/301671>