

Rabbit CAMKK1/2 Polyclonal Antibody | anti-CAMKK1/2 antibody

Phospho-CAMKK1/2 (Ser458/Ser495) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA31402	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (100%)	Western Blot, Immunohistochemistry, ELISA

PRODUCT SYNONYMS

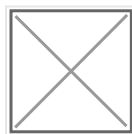
CAMKK1/2; Polyclonal Antibody; Phospho-CAMKK1/2 (Ser458/Ser495) Antibody; Ca2+/calmodulin-dependent protein kinase kinase alpha; Calcium/calmodulin dependent protein kinase kinase; Calcium/calmodulin dependent protein kinase kinase 1 alpha; Calcium/calmodulin dependent protein kinase kinase 1; Calcium/calmodulin dependent protein kinase kinase alpha; CaM kinase kinase alpha; CaM-kinase IV kinase; CaM-kinase kinase 1; CaM-kinase kinase alpha; CaM-KK 1; CaM-KK alpha; CaMKK 1; CaMKK alpha; CAMKK alpha protein; CaMKK; Camkk1; CAMKKA; DKFZp761M0423; KKCC1_HUMAN; MGC34095; OTTMUSP00000006419; Calcium/calmodulin dependent protein kinase beta; Calcium/calmodulin dependent protein kinase kinase 2; Calcium/calmodulin dependent protein kinase kinase 2 beta; Calcium/calmodulin dependent protein kinase kinase beta; Calcium/calmodulin-dependent protein kinase kinase 2; Calcium/calmodulin-dependent protein kinase kinase beta; CaM kinase kinase beta; CaM KK beta; CaM-kinase kinase 2; CaM-kinase kinase beta; CaM-KK 2; CaM-KK beta; CaMKK 2; CAMKK; CaMKK beta; CAMKK beta protein; Camkk2; CAMKKB; KKCC2_HUMAN; anti-CAMKK1/2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (100%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-CAMKK1/2 (Ser458/Ser495) Antibody detects endogenous levels of CAMKK1/2 only when phosphorylated at Ser458/495. Tissue Specificity: Ubiquitously expressed with higher levels in the brain. Intermediate levels are detected in spleen, prostate, thyroid and leukocytes. The lowest level is in lung.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-CAMKK1/2 antibody	WB (Western Blot), IHC (Immunohistochemistry), ELISA (Peptide ELISA)
Application Notes	WB: 1:1000-3000 IHC: 1:50-1:200 Peptide ELISA: 1:20,000-1:40,000
Immunogen	A synthesized peptide derived from human CAMKK1/2 around the phosphorylation site of Ser458/495.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Autophosphorylated and phosphorylated by PKA. Each isoform may show a different pattern of phosphorylation.
Subunit Structure	Interacts with calmodulin.

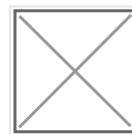
Similarity	The autoinhibitory domain overlaps with the calmodulin binding region and may be involved in intrasteric autoinhibition. The RP domain (arginine/proline-rich) is involved in the recognition of CAMK1 and CAMK4 as substrates. Belongs to the protein kinase superfamily. Ser/Thr protein kinase family.
Subcellular Location	Nucleus. Cytoplasm. Cell projection>Neuron projection. Note: Predominantly nuclear in unstimulated cells, relocalizes into cytoplasm and neurites after forskolin induction.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



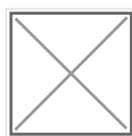
IHC (Immunohistochemistry)

At 1/100 staining Human gastric cancer and adjacent normal tissues by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



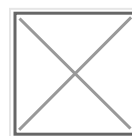
IHC (Immunohistochemistry)

At 1/100 staining Human kidney cancer and adjacent normal tissues by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



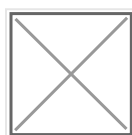
IHC (Immunohistochemistry)

At 1/100 staining Human ovarian cancer by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



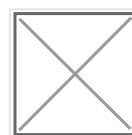
IHC (Immunohistochemistry)

At 1/100 staining Human ovarian cancer by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

At 1/100 staining Rat heart tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

At 1/100 staining Rat kidney tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-CAMKK1/2 antibody	Calcium/calmodulin-dependent protein kinase belonging to a proposed calcium-triggered signaling cascade involved in a number of cellular processes. Isoform 1, isoform 2 and isoform 3 phosphorylate CAMK1 and CAMK4. Isoform 3 phosphorylates CAMK1D. Isoform 4, isoform 5 and isoform 6 lacking part of the calmodulin-binding domain are inactive. Efficiently phosphorylates 5'-AMP-activated protein kinase (AMPK) trimer, including that consisting of PRKAA1, PRKAB1 and PRKAG1. This phosphorylation is stimulated in response to Ca (2+) signals (By similarity). Seems to be involved in hippocampal activation of CREB1 (By similarity). May play a role in neurite growth. Isoform 3 may promote neurite elongation, while isoform 1 may promote neurite branching.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	14150045
NCBI GeneID	84254
NCBI Accession #	NP_115670.1
NCBI GenBank Nucleotide #	NM_032294.2
UniProt Accession #	Q8N5S9 ; Q96RR4

Molecular Weight	57,523 Da
NCBI Official Full Name	calcium/calmodulin-dependent protein kinase kinase 1 isoform a
NCBI Official Synonym Full Names	calcium/calmodulin-dependent protein kinase kinase 1, alpha
NCBI Official Symbol	CAMKK1
NCBI Official Synonym Symbols	CAMKKA
NCBI Protein Information	calcium/calmodulin-dependent protein kinase kinase 1; caMKK 1; caM-KK 1; caM-KK alpha; CAMKK alpha protein; caM-kinase kinase 1; caM-kinase IV kinase; caM-kinase kinase alpha; calcium/calmodulin-dependent protein kinase kinase alpha
UniProt Protein Name	Calcium/calmodulin-dependent protein kinase kinase 1
UniProt Gene Name	CAMKK1
UniProt Synonym Gene Names	CAMKKA; CaM-KK 1; CaM-kinase kinase 1; CaMKK 1; CaM-KK alpha; CaM-kinase kinase alpha; CaMKK alpha
UniProt Entry Name	KKCC1_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/camkk1-2-antibody-western-blot-immunohistochemistry-peptide-elisa-elisa/31402>