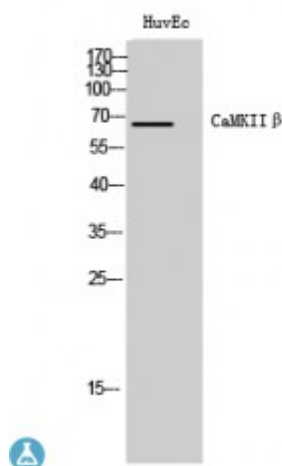


Anti-CaMKII antibody



Description	Rabbit polyclonal to CaMKII.
Model	STJ91989
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	ELISA, IHC, WB
Immunogen	Synthesized peptide derived from human CaMKIIbeta
Immunogen Region	350-430 aa, Internal
Gene ID	10645
Gene Symbol	CAMKK2
Dilution range	WB 1:500-1:2000IHC 1:100-1:300ELISA 1:10000
Specificity	CaMKIIbeta Polyclonal Antibody detects endogenous levels of CaMKIIbeta protein.
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.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Calcium/calmodulin-dependent protein kinase kinase 2 CaM-KK 2 CaM-kinase kinase 2 CaMKK 2 Calcium/calmodulin-dependent protein kinase kinase beta CaM-KK beta CaM-kinase kinase beta CaMKK beta

Molecular Weight	65 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:14700MIM:615002
Alternative Names	Calcium/calmodulin-dependent protein kinase kinase 2 CaM-KK 2 CaM-kinase kinase 2 CaMKK 2 Calcium/calmodulin-dependent protein kinase kinase beta CaM-KK beta CaM-kinase kinase beta CaMKK beta
Function	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 . Seems to be involved in hippocampal activation of CREB1 . May play a role in neurite growth. Isoform 3 may promote neurite elongation, while isoform 1 may promote neurite branching.
Sequence and Domain Family	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 CAMKI and CAMK4 as substrates.
Cellular Localization	Nucleus Cytoplasm Cell projection. Predominantly nuclear in unstimulated cells . Found in the cytoplasm and neurites after forskolin induction.
Post-translational Modifications	Autophosphorylated and phosphorylated by PKA. Each isoform may show a different pattern of phosphorylation.