CaMK2- beta/ gamma/ delta (Phospho-Thr287) Antibody

Catalog No: #12065

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Description

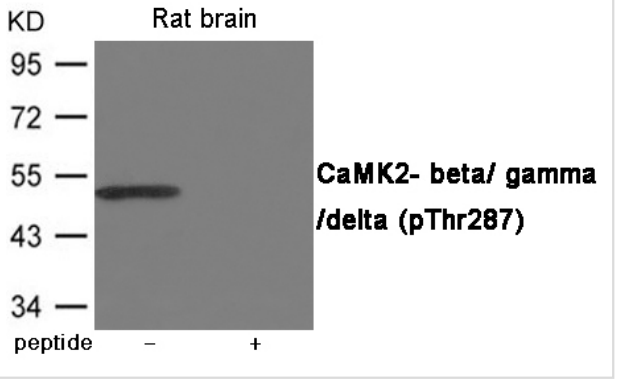
Product Name	CaMK2- beta/ gamma/ delta (Phospho-Thr287) Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatogramphy using non-phosphopeptide.
Applications	IF,WB,IHC,ELISA
Species Reactivity	Hu Ms Rt
Specificity	The antibody detects endogenous level of CaMK2- beta/ gamma/ delta only when phosphorylated at Threonine 287.
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around phosphorylation site of Threonine 287 (Q-E-T(p)-V-E) derived from Human CaMK2- beta/ gamma/ delta.
Target Name	CaMK2- beta/ gamma/ delta
Modification	Phospho
Other Names	CAM2, CAMK2, CAMKB
Accession No.	Swiss-Prot#: Q13554/Q13555/Q13557; NCBI Gene#: 816/818/817; NCBI Protein#: NP_001211.3
Uniprot	Q13554
GeneID	816;
SDS-PAGE MW	50kd
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C/1 year

Application Details

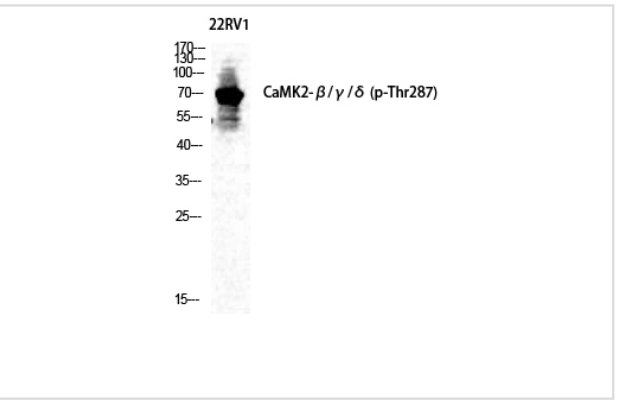
Predicted MW: 50kd

Western blotting: 1:500~1:1000

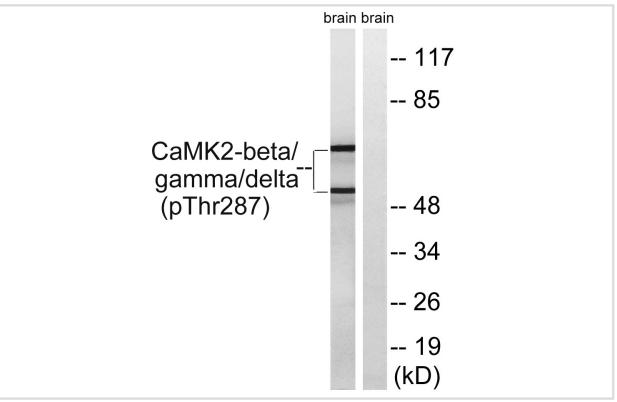
Images



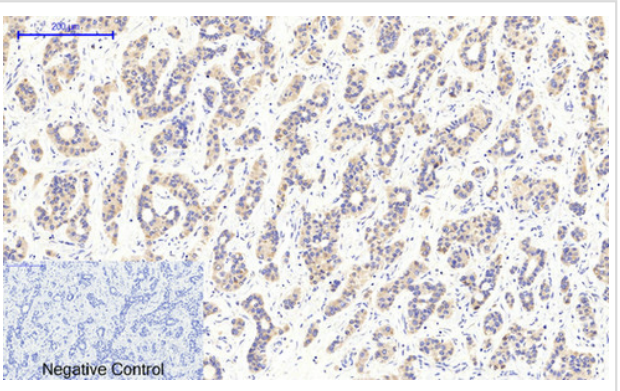
Western blot analysis of extracts from Rat brain using CaMK2-beta/ gamma/ delta (Phospho-Thr287) Antibody #12065.The lane on the right is treated with the antigen-specific peptide.



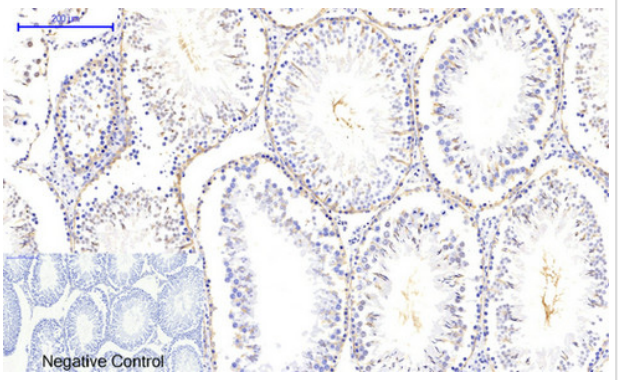
Western Blot analysis of 22RV1 cells using Phospho-CaMKIIβ/γ/δ (T287) Polyclonal Antibody diluted at 1:500



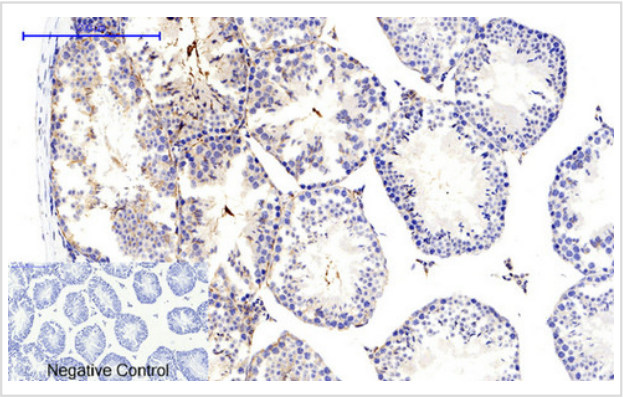
Western blot analysis of lysates from rat brain, using CaMK2-beta/gamma/delta (Phospho-Thr287) Antibody. The lane on the right is blocked with the phospho peptide.



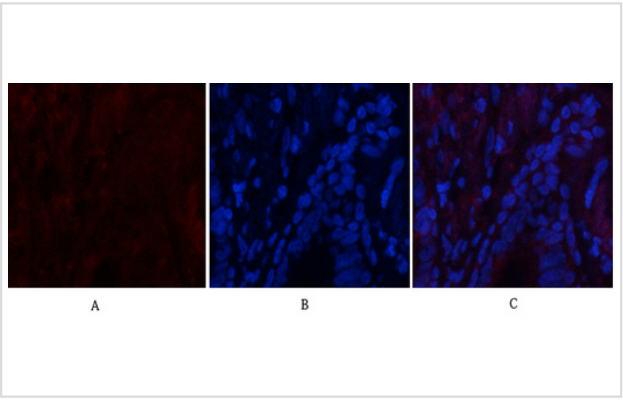
Immunohistochemical analysis of paraffin-embedded Human-liver-cancer tissue. 1,CaMKIIβ/γ/δ (phospho Thr287) Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.



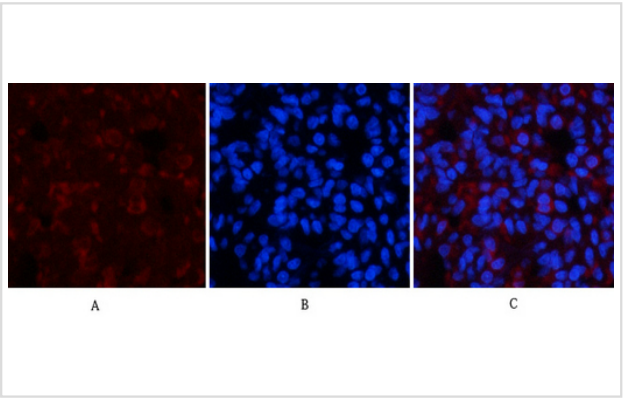
Immunohistochemical analysis of paraffin-embedded Rat-testis tissue. 1,CaMKIIβ/γ/δ (phospho Thr287) Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Mouse-testis tissue. 1,CaMKIIβ/γ/δ (phospho Thr287) Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.



Immunofluorescence analysis of human-lung tissue. 1,CaMKIIβ/γ/δ (phospho Thr287) Polyclonal Antibody(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



Immunofluorescence analysis of rat-lung tissue. 1,CaMKIIβ/γ/δ (phospho Thr287) Polyclonal Antibody(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

Background

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.

Note: This product is for in vitro research use only