CaMKIIβ/γ/δ (Phospho Thr287) Rabbit pAb

CatalogNo: YP0781 Orthogonal Validated

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat

Applications
- IF,WB,IHC,ELISA

MW
- 50kD,65kD (Observed)

Isotype
- IgG

Recommended Dilution Ratios

IF 1:50-200
WB 1:500-1:2000
IHC 1:100-1:300
ELISA 1:5000
Not yet tested in other applications

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality	Polyclonal

Immunogen Information

Immunogen	The antiserum was produced against synthesized peptide derived from human CaMK2-beta/gamma/delta around the phosphorylation site of Thr287. AA range:253-302

Specificity	Phospho-CaMKIIβ/γ/δ (T287) Polyclonal Antibody detects endogenous levels of CaMKIIβ/γ/δ protein only when phosphorylated at T287.The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):QEtVE

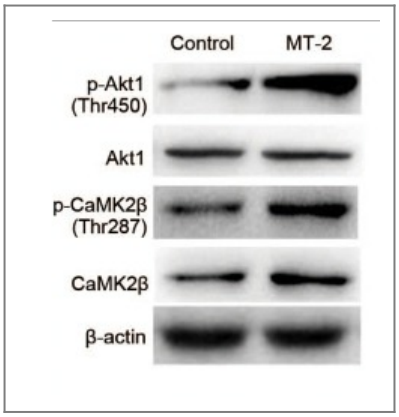
Target Information

Gene name	CAMK2B
Protein Name	Calcium/calmodulin-dependent protein kinase type II subunit beta

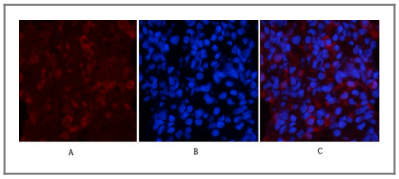
Organism	Gene ID	UniProt ID
Human	816; 818; 817;	Q13554; Q13555; Q13557;
Mouse	12323; 12325; 108058;	
Rat	24245; 171140; 24246;	P08413; P11730; P15791;

Cellular Localization	Cytoplasm, cytoskeleton . Cytoplasm, cytoskeleton, microtubule organizing center, centrosome . Sarcoplasmic reticulum membrane ; Peripheral membrane protein ; Cytoplasmic side . Cell junction, synapse . In slow-twitch muscle, evenly distributed between longitudinal SR and junctional SR.
Tissue specificity	Widely expressed. Expressed in adult and fetal brain. Expression is slightly lower in fetal brain. Expressed in skeletal muscle.
Function	Alternative products:The variable region of the CAMK2B protein is encoded by at least 7 exons (V1 to V7). Alternative splicing within this region gives rise to CAMK2B isoforms,Catalytic activity:ATP + a protein = ADP + a phosphoprotein.,enzyme regulation:Autophosphorylation of CAMK2 plays an important role in the regulation of the kinase activity.,Function:CaM-kinase II (CAMK2) is a prominent kinase in the central nervous system that may function in long-term potentiation and neurotransmitter release. Member of the NMDAR signaling complex in excitatory synapses, it may regulate NMDAR-dependent potentiation of the AMPAR and synaptic plasticity.,similarity:Belongs to the protein kinase superfamily.,similarity:Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. CaMK subfamily.,similarity:Contains 1 protein kinase domain.,subunit:CAMK2 is composed of four different chains: alpha, beta, gamma, and delta. The different isoforms assemble into homo- or heteromultimeric holoenzymes composed of 8 to 12 subunits. Interacts with SYNGAP1 and CAMK2N2 (By similarity). Interacts with MPDZ.,tissue specificity:Widely expressed. Expressed in adult and fetal brain. Expression is slightly lower in fetal brain.,

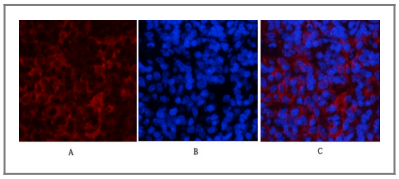
Validation Data



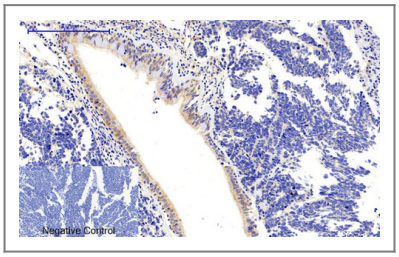
Zhou, Dong-Dong, et al. "Metallothionein-2 is associated with the amelioration of asthmatic pulmonary function by acupuncture through protein phosphorylation." Biomedicine & Pharmacotherapy 123 (2020): 109785.



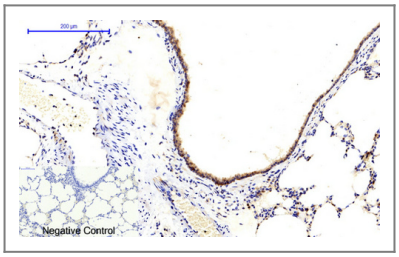
Immunofluorescence analysis of rat-lung tissue. 1,CaMKIIβ/γ/δ (phospho Thr287) Polyclonal Antibody(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge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



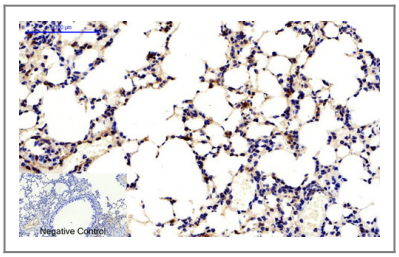
Immunofluorescence analysis of rat-spleen tissue. 1,CaMKIIβ/γ/δ (phospho Thr287) Polyclonal Antibody(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge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



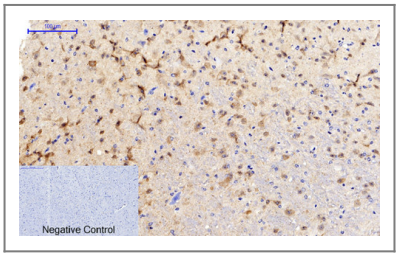
Immunohistochemical analysis of paraffin-embedded Human-lung-cancer tissue. 1,CaMKIIβ/γ/δ (phospho Thr287) Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min).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



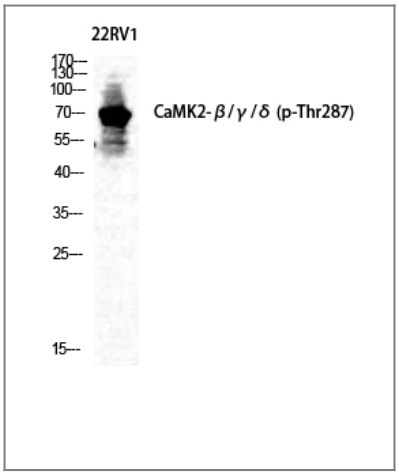
Immunohistochemical analysis of paraffin-embedded Rat-lung tissue. 1,CaMKIIβ/γ/δ (phospho Thr287) Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative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



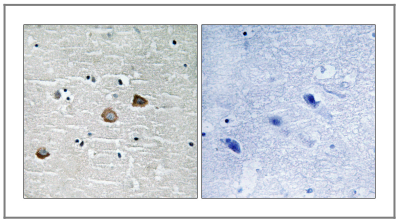
Immunohistochemical analysis of paraffin-embedded Mouse-lung tissue. 1,CaMKIIβ/γ/δ (phospho Thr287) Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative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



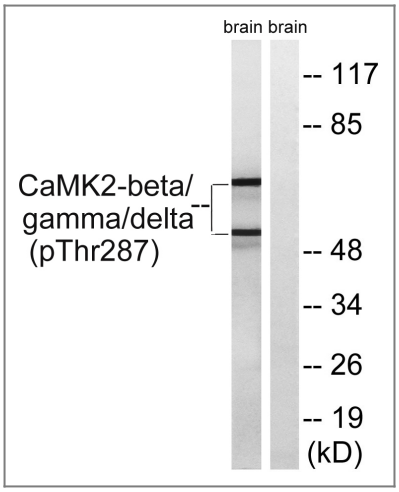
Immunohistochemical analysis of paraffin-embedded Mouse-brain tissue. 1,CaMKIIβ/γ/δ (phospho Thr287) Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative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



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



Immunohistochemistry analysis of paraffin-embedded human brain, using CaMK2-beta/gamma/delta (Phospho-Thr287) Antibody. The picture on the right is blocked with the phospho peptide.



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.

Contact information

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Please scan the QR code to access additional product information:
CaMKIIβ/γ/δ (Phospho Thr287) Rabbit pAb