

For Research Use Only

# CaMKII Beta Polyclonal antibody

Catalog Number: 11533-1-AP

Featured Product

11 Publications



## Basic Information

### Catalog Number:

11533-1-AP

### Size:

150ul, Concentration: 200 ug/ml by Nanodrop and 227 ug/ml by Bradford method using BSA as the standard;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG2119

### GenBank Accession Number:

BC019070

### GeneID (NCBI):

816

### UNIPROT ID:

Q13554

### Full Name:

calcium/calmodulin-dependent protein kinase II beta

### Calculated MW:

503 aa, 56 kDa

### Observed MW:

50-70 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB 1:1000-1:4000

IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC 1:20-1:200

## Applications

### Tested Applications:

WB, IHC, IP, ELISA

### Cited Applications:

WB, IHC, IF, IP

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse, rat, pig, zebra finches

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

### Positive Controls:

WB: mouse brain tissue, SH-SY5Y cells, human brain tissue, rat brain tissue

IP: mouse brain tissue,

IHC: human gliomas tissue, human brain tissue

## Background Information

CAMK2B (Calcium/calmodulin-dependent protein kinase type II subunit beta), also named CAM2, CAMK2, and CAMKB, belongs to the protein kinase superfamily, CAMK Ser/Thr protein kinase family, and CaMK subfamily. It is a prominent kinase in the central nervous system that may function in long-term potentiation and neurotransmitter release. CAMK2B is a member of the NMDAR signaling complex in excitatory synapses, it may regulate NMDAR-dependent potentiation of the AMPAR and synaptic plasticity. It plays a distinct role in the induction of energy in T lymphocytes, by differential regulation of IL10 and IL2 gene transcription suggesting MEF2A as a molecular target that can integrate different calcium signals (PMID:22578382). This protein has 8 isoforms produced by alternative splicing with a molecular weight between 50 kDa and 73 kDa. This antibody may have cross-reaction with CAMK2A/D/G due to the high homology.

## Notable Publications

Author	Pubmed ID	Journal	Application
Lisa Y So	33031871	Behav Brain Res	WB
Huanliang Liu	31829301	Sci Total Environ	WB
Ting-Ting Chen	33714957	Aging (Albany NY)	WB

## Storage

### Storage:

Store at -20°C. Stable for one year after shipment.

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

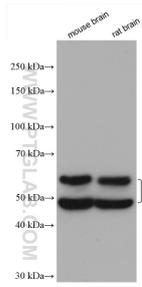
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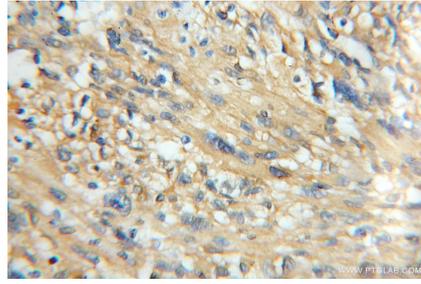
E: proteintech@ptglab.com  
W: ptglab.com

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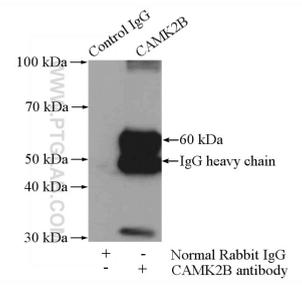
## Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 11533-1-AP (CaMKII beta antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human gliomas using 11533-1-AP (CaMKII beta antibody) at dilution of 1:50 (under 10x lens).



IP result of anti-CaMKII Beta (IP:11533-1-AP, 4ug; Detection:11533-1-AP 1:1000) with mouse brain tissue lysate 4000ug.