

# CaMKII beta-Specific Polyclonal antibody

Catalog Number: **55218-1-AP**

## Basic Information

<b>Catalog Number:</b> 55218-1-AP	<b>GenBank Accession Number:</b> NM_001220	<b>Purification Method:</b> Antigen affinity purification
<b>Size:</b> 150ul , Concentration: 400 µg/ml by Nanodrop and 280 µg/ml by Bradford method using BSA as the standard;	<b>GeneID (NCBI):</b> 816	<b>Recommended Dilutions:</b> WB 1:1000-1:6000 IHC 1:20-1:200 IF 1:20-1:200
<b>Source:</b> Rabbit	<b>Full Name:</b> calcium/calmodulin-dependent protein kinase II beta	
<b>Isotype:</b> IgG	<b>Calculated MW:</b> 73 kDa	
	<b>Observed MW:</b> 55-60 kDa	

## Applications

<b>Tested Applications:</b> IF, IHC, WB, ELISA	<b>Positive Controls:</b>
<b>Species Specificity:</b> human, mouse, rat	<b>WB :</b> A549 cells, Hela cells, mouse brain tissue, mouse cerebellum tissue
<b>Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0</b>	<b>IHC :</b> human skeletal muscle tissue, human brain tissue
	<b>IF :</b> HEK-293 cells,

## Background Information

CaMKII beta (Calcium/calmodulin-dependent protein kinase type II subunit beta ), also named as CAMK2B, CAM2 or CAMKB, belongs to the protein kinase superfamily, CAMK Ser/Thr protein kinase family and CaMK subfamily. It 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 anergy in T lymphocytes, by differential regulation of IL10 and IL2 gene transcription suggesting MEF2A as a molecular target which can integrate different calcium signals (PMID:22578382). CAMK2B has 8 isoforms produced by alternative splicing with the molecular weight 50-73 kDa. This antibody is specific to CAMK2B and can recognize all the isoforms except isoform 7.

## Storage

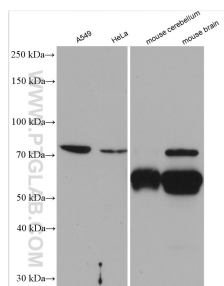
**Storage:**  
Store at -20°C.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
**Aliquoting is unnecessary for -20°C storage**

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

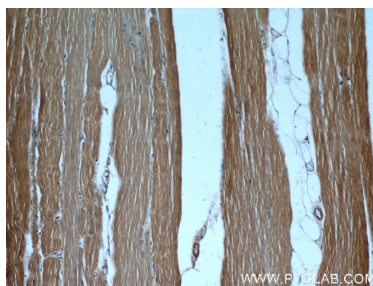
For technical support and original validation data for this product please contact:  
 T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
 E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
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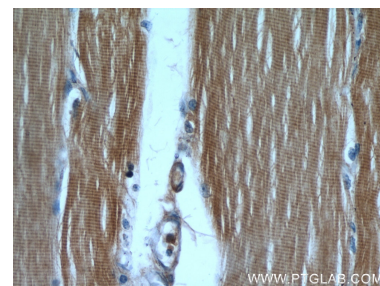
## Selected Validation Data



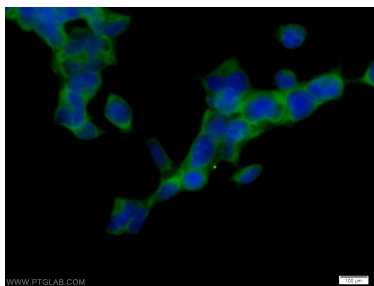
Various lysates were subjected to SDS PAGE followed by western blot with 55218-1-AP (CaMKII beta-Specific antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human skeletal muscle using 55218-1-AP (CaMKII beta antibody) at dilution of 1:50 (under 10x lens).



Immunohistochemical analysis of paraffin-embedded human skeletal muscle using 55218-1-AP (CaMKII beta antibody) at dilution of 1:50 (under 40x lens).



Immunofluorescent analysis of HEK-293 cells using 55218-1-AP (CaMKII beta antibody) at dilution of 1:50 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).