

CaMKII beta-Specific Polyclonal antibody

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

Basic Information

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|--------------------------------------|--|--|
| Catalog Number: 55218-1-AP | GenBank Accession Number: NM_001220 | Purification Method: Antigen affinity purification |
| Size: 400 µg/ml | GeneID (NCBI): 816 | Recommended Dilutions: WB 1:1000-1:6000 |
| Source: Rabbit | UNIPROT ID: Q13554 | IHC 1:20-1:200 |
| Isotype: IgG | Full Name: calcium/calmodulin-dependent protein kinase II beta | IF/ICC 1:20-1:200 |
| | Calculated MW: 73 kDa | |
| | Observed MW: 55-60 kDa | |

Applications

Tested Applications:
IF/ICC, IHC, WB, ELISA

Species Specificity:
human, mouse, rat

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 : A549 cells, Hela cells, mouse brain tissue, mouse cerebellum tissue

IHC : human skeletal muscle tissue, human brain tissue

IF/ICC : HEK-293 cells,

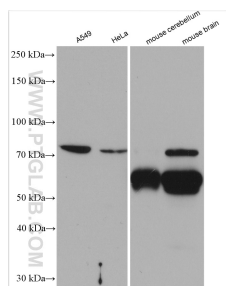
Background Information

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.

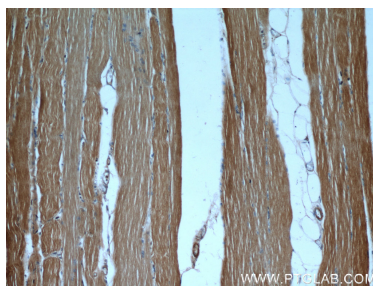
Storage

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

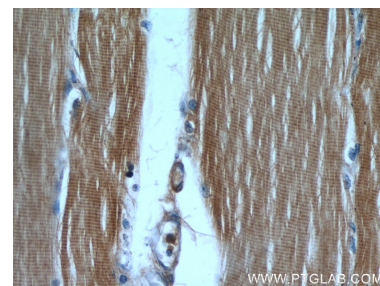
Selected Validation Data



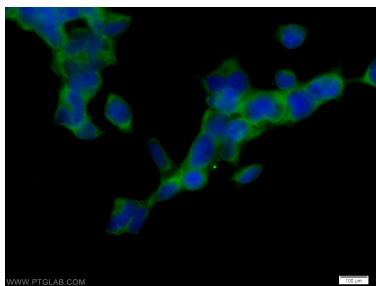
Various lysates were subjected to SDS PAGE followed by western blot with 55218-1-AP (CaMKII beta-specific antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



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).