

For Research Use Only

CaMKII alpha-Specific Polyclonal antibody

Catalog Number: 20666-1-AP

Featured Product

11 Publications



Basic Information

Catalog Number:

20666-1-AP

Size:

150ul, Concentration: 700 µg/ml by Nanodrop and 320 µg/ml by Bradford method using BSA as the standard;

Source:

Rabbit

Isotype:

IgG

GenBank Accession Number:

NM_015981

GeneID (NCBI):

815

UNIPROT ID:

Q9UQM7

Full Name:

calcium/calmodulin-dependent protein kinase II alpha

Calculated MW:

55 kDa

Observed MW:

50 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB 1:500-1:2000

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

IHC 1:20-1:200

IF-P 1:50-1:500

IF/ICC 1:50-1:500

Applications

Tested Applications:

WB, IHC, IF/ICC, IF-P, IP, ELISA

Cited Applications:

WB, ColP

Species Specificity:

human

Cited Species:

human

Positive Controls:

WB : HEK-293 cells,

IP : HEK-293 cells,

IHC : human brain tissue,

IF-P : mouse brain tissue,

IF/ICC : SH-SY5Y cells,

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

Background Information

CaMKII alpha, also named CAMKA and KIAA0968, belongs to the protein kinase superfamily, CAMK Ser/Thr protein kinase family, and CaMK subfamily. CaM-kinase II (CAMK2) is a prominent kinase in the central nervous system that may function in long-term potentiation and neurotransmitter release. It is a member of the NMDAR signaling complex in excitatory synapses it may regulate NMDAR-dependent potentiation of the AMPAR and synaptic plasticity. This antibody is specific to CAMK2A.

Notable Publications

Author	Pubmed ID	Journal	Application
You Wang	34642320	Cell Death Dis	WB, ColP
Huanliang Liu	31829301	Sci Total Environ	WB
Wenfeng Liu	31242498	Gerontology	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

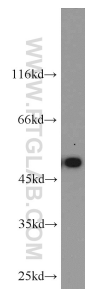
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

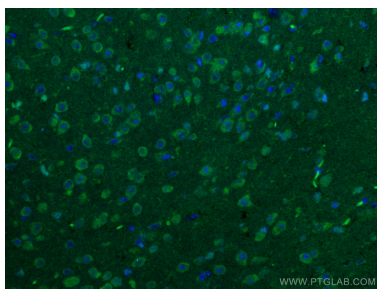
E: proteintech@ptglab.com
W: ptglab.com

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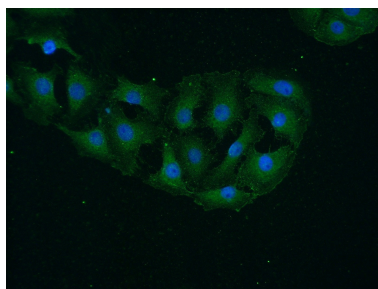
Selected Validation Data



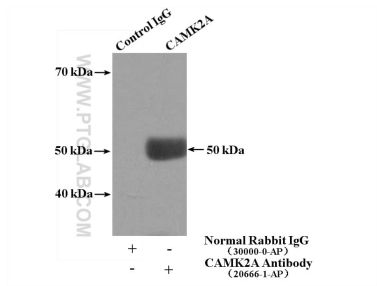
HEK-293 cells were subjected to SDS PAGE followed by western blot with 20666-1-AP (CaMKII alpha-Specific antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



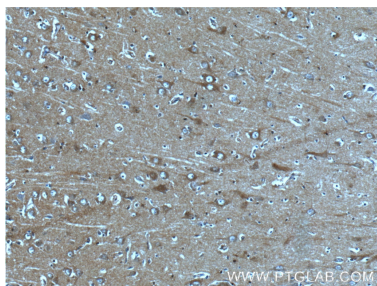
Immunofluorescent analysis of (4% PFA) fixed mouse brain tissue using 20666-1-AP (CaMKII alpha-Specific antibody), at dilution of 1:100 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



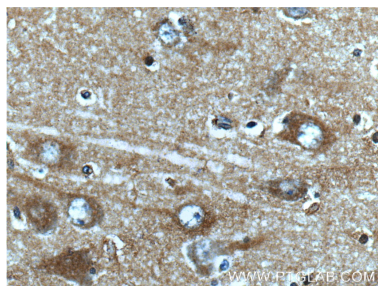
Immunofluorescent analysis of (-20°C Ethanol) fixed SH-SY5Y cells using 20666-1-AP (CaMKII alpha-Specific antibody) at dilution of 1:50 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



IP result of anti-CaMKII alpha-Specific (IP:20666-1-AP, 4ug; Detection:20666-1-AP 1:1000) with HEK-293 cells lysate 1480ug.



Immunohistochemical analysis of paraffin-embedded human brain tissue slide using 20666-1-AP (CaMKII alpha-Specific antibody) at dilution of 1:50 (under 10x lens).



Immunohistochemical analysis of paraffin-embedded human brain tissue slide using 20666-1-AP (CaMKII alpha-Specific antibody) at dilution of 1:50 (under 40x lens).