Data Sheet (Cat.No.TMAC-00540)

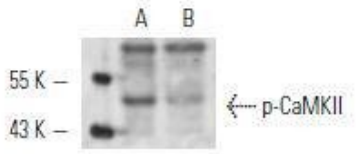
Anti-Phospho-CaMK2 (Thr286) Antibody (9U416)

Product Details

Reactivity:	Rat
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 50 kDa.
Clone:	9U416
Purification:	ProA affinity purified

Applications

Verified Activity: 1. Western blot analysis of p-CaMKII phosphorylation in untreated (A) and lambda phosphatase treated (B) rat brain tissue extract.



Application:	IF,IP,WB
Recommended	WB: 1:100-1000; IHC: 1:50-500; IP: 1-2 μg per 100-500 μg of total protein (1ml of cell lysate)

Properties

Stability & Storage:	Store at 2°C-8°C for 12 months, do not freeze.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	Peptide
Uniprot ID:	Q9UQM7
Synonyms:	EC 2.7.11.17;CAMKB;alpha CaMKII;CaMK II beta subunit;mKIAA0968;Calcium/calmodulin-dependent protein kinase type II subunit alpha;MGC155201;CAMK2D;Calcium calmodulin dependent protein kinase II alpha-B subunit;PK2CDD;R74975;MGC139375;CaM kinase II alpha subunit;Calcium/calmodulin-dependent protein kinase type IIA;CaMKII;p-CaMKII (T286); CAMK2B;MGC123320;PKCCD;CaMK II alpha subunit;CAM2;CaM kinase II alpha chain;CAMKA; CaM kinase II beta subunit;CaM kinase II subunit alpha;CaM kinase II delta subunit;CaM kinase II beta chain;CAMK2A;Calcium/calmodulin-dependent protein kinase(CaM kinase) II alpha; CaMKII (p-Thr286);Calcium calmodulin dependent protein kinase CaM kinase II alpha;KCC2A; Calcium/Calmodulin Dependent Protein Kinase II G;zgc:112538;CaMKII alpha;CaMK-II subunit alpha;zgc:123320;Calcium/calmodulin dependent protein kinase II alpha;KIAA0968;CaMK II delta subunit;Calcium calmodulin dependent protein kinase II;CaM kinase II delta chain;p-

CaMKII (Thr286);CaMKII (p-T286)

Research Background

The Ca2+/calmodulin-dependent protein kinases (CaM kinases) comprise a structurally related subfamily of serine/threonine kinases which include CaMKI, CaMKII and CaMKIV. CaMKII is a ubiquitously expressed serine/threonine protein kinase that is activated by Ca2+ and calmodulin (CaM) and has been implicated in regulation of the cell cycle and transcription. There are four CaMKII isozymes, designated α, β,γandδ, which may or may not be coexpressed in the same tissue types. CaMKIV is stimulated by Ca2+ and CaM but also requires phosphorylation by a CaMK for full activation. Stimulation of the T cell receptor CD3 signaling complex with an CD3 monoclonal antibody leads to a 10-40 fold increase in CaMKIV activity. An additional kinase, CaMKK, functions to activate CaMKI through the specific phosphorylation of the regulatory threonine residue at position 177.