

Anti-Phospho-CaMKII (T286) Antibody [JE51-81]

HA721794



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB
Molecular Wt:	Predicted band size: 54 kDa
Clone number:	JE51-81

Description: 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 , γ and δ , 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 anti-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.

Immunogen: Synthetic phosphopeptide corresponding to residues surrounding Thr286 of human CaMKII.

Positive control: Human brain tissue lysate, mouse brain tissue lysate, rat brain tissue lysate.

Subcellular location: Synapse, Postsynaptic density, Cell projection, dendritic spine, dendrite.

Database links: SwissProt: Q13554 Human | Q13555 Human | Q13557 Human | Q9UQM7 Human

Recommended Dilutions:
WB 1,000

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4°C after thawing. Aliquot store at -20°C. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

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Images

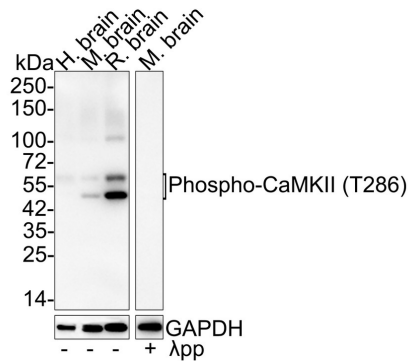


Fig1: Western blot analysis of Phospho-CaMKII (T286) on different lysates with Rabbit anti-Phospho-CaMKII (T286) antibody (HA721794) at 1/1,000 dilution.

Lane 1: Human brain tissue lysate

Lane 2: Mouse brain tissue lysate

Lane 3: Rat brain tissue lysate

Lane 4: Mouse brain tissue lysate, the membrane treated with λ pp for 1 hour

Lysates/proteins at 30 μ g/Lane.

Predicted band size: 54~73 kDa

Observed band size: 50~60 kDa

Exposure time: 53 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDN/TBST for 1 hour at room temperature. The primary antibody (HA721794) at 1/1,000 dilution was used in 5% NFDN/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

- Alhaider, I.A., et al. 2010. Chronic caffeine treatment prevents sleep deprivation-induced impairment of cognitive function and synaptic plasticity. *Sleep* 33: 437-444.
- Zoladz, P.R., et al. 2011. Differential expression of molecular markers of synaptic plasticity in the hippocampus, prefrontal cortex, and amygdala in response to spatial learning, predator exposure, and stress-induced amnesia. *Hippocampus* 22: 577-589.

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