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PRODUCT DATASHEET

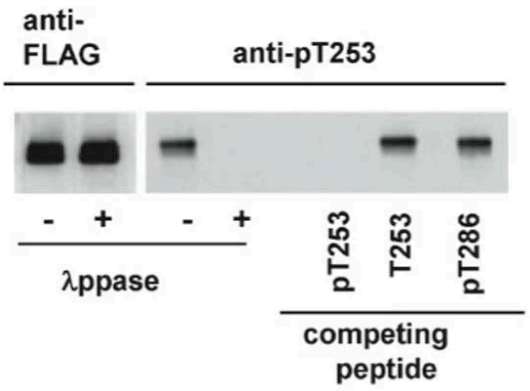
Anti-CamKII subunit alpha, Thr253 Antibody

Product Details

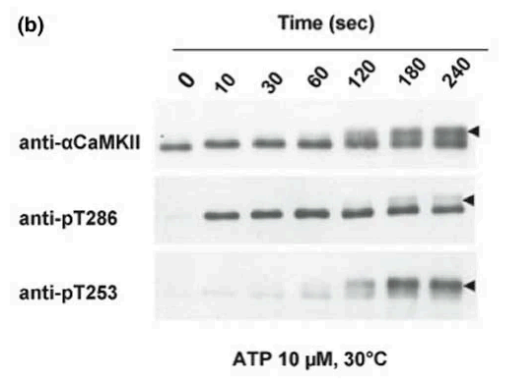
Available Variants	100 µL (SKU:R-1706-100)
Conjugate	Unconjugated
Isotype	Mixed
Host Species	Rabbit
Format	Whole serum
Physical State	Lyophilized
Applications	WB
Dilution Ranges	WB: 1:200-1:1000
Species Reactivity	Rat
Immunogen	A synthetic peptide (NKmLpTINPSC) corresponding to the sequence around Thr253 (AA 249-257) in alpha-CaMKII was synthesized, purified to 95% purity by HPLC, analyzed by mass spectroscopy and coupled to diphtheria toxoid.
Specificity	Rat. Predicted from gene analysis to react with human and mouse alpha-CaMKII.
Storage	Spin vial briefly before opening. Reconstitute in 100 uL sterile-filtered, ultrapure water. Centrifuge to remove any insoluble material. Centrifuge to remove any insoluble material. After reconstitution of lyophilized antibody, aliquot and store at -20°C for a higher stability. Avoid freeze-thaw cycles.
UniProt ID	P11275 UniProt Summary: Calcium/calmodulin-dependent protein kinase that functions autonomously after Ca(2+)/calmodulin-binding and autophosphorylation, and is involved in various processes, such as synaptic plasticity, neurotransmitter release and long-term potentiation. Member of the NMDAR signaling complex in excitatory synapses, it regulates NMDAR-dependent potentiation of the AMPAR and therefore excitatory synaptic transmission. Regulates dendritic spine development. Also regulates the migration of developing neurons. Phosphorylates the transcription factor FOXO3 to activate its transcriptional

	activity. Phosphorylates the transcription factor ETS1 in response to calcium signaling, thereby decreasing ETS1 affinity for DNA. In response to interferon-gamma (IFN-gamma) stimulation, catalyzes phosphorylation of STAT1, stimulating the JAK-STAT signaling pathway. In response to interferon-beta (IFN-beta) stimulation, stimulates the JAK-STAT signaling pathway. In response to interferon-gamma (IFN-gamma) stimulation, catalyzes phosphorylation of PSAT1, inhibiting ferroptosis by promoting GPX4 hydroxylation and stability. Acts as a negative regulator of 2-arachidonoylglycerol (2-AG)-mediated synaptic signaling via modulation of DAGLA activity.
Country of Origin	United States
Shipping	25°C (ambient)
Expiration	12 months after date of receipt (unopened vial).
Usage Statement	For research use only.
NCBI Gene ID	25400

Product Images



Western blot analysis of recombinant FLAG-alpha-CaMKII purified from transfected COS cells. Blots of wild-type CaMKII phosphorylated at Thr253 were treated with lambda phosphatase prior to probing with anti-pT253 or anti-FLAG antibody. The pT253 antibody was incubated with phospho-Thr253 (pT253, 50 nM), non-phospho-Thr253 (T253, 500 nM) or phospho-Thr286 (pT286, 50 nM) peptides prior to probing the western blots. Reference: Migues PV et al (2006) J Neurochem 98 (1), 289-299.



Western blots of wild-type CaMKII showing auto-phosphorylation over 4 min at 10 µM ATP, 30°C and probed with antibodies to α-CaMKII, phospho-Thr286-CaMKII (anti-pT286) and phospho-Thr253-CaMKII (anti-pT253). The arrow-heads indicate the electrophoretic mobility of CaMKII phosphorylated at Thr253. Reference: Migues PV et al (2006) J Neurochem 98 (1), 289-299.

Created on 19. November 2026 | All information without guarantee