

## ARG52238 anti-CaMKII phospho (Thr286) antibody

Package: 50 µl  
Store at: -20°C

### Summary

Product Description	Rabbit Polyclonal antibody recognizes CaMKII phospho (Thr286)
Tested Reactivity	Rat
Predict Reactivity	Hu, Ms, Xenopus laevis
Tested Application	WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	CaMKII
Species	Rat
Immunogen	Synthetic phospho-peptide corresponding to amino acid residues surrounding Thr286 conjugated to KLH
Conjugation	Un-conjugated
Alternate Names	CAMKA; CaMK-II subunit alpha; Calcium/calmodulin-dependent protein kinase type II subunit alpha; CaM kinase II subunit alpha; EC 2.7.11.17

### Application Instructions

Application table	Application	Dilution
	WB	1:1,000

**Application Note** Specific for the ~50k α-CaM Kinase II and the ~60k β-CaM Kinase II proteins phosphorylated at Thr286. Immunolabeling is blocked by the λ-phosphatase treatment.  
\* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

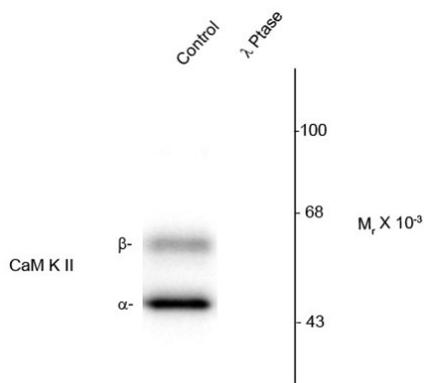
### Properties

Form	Liquid
Purification	Affinity Purified
Buffer	10 mM HEPES (pH 7.5), 150 mM NaCl, 0.1 mg/ml BSA and 50% Glycerol
Stabilizer	0.1 mg/ml BSA, 50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

## Bioinformation

Database links	<a href="#">GeneID: 25400 Rat</a> <a href="#">Swiss-port # P11275 Rat</a>
Gene Symbol	CAMK2A/B
Gene Full Name	calcium/calmodulin-dependent protein kinase II alpha
Background	Ca <sup>2+</sup> /calmodulin-dependent protein kinase II (CaM Kinase II) is a multi-functional calcium and calmodulin-dependent protein kinase that mediates cellular responses to a wide variety of intercellular signals (Kennedy, 1998; Schulman and Hanson, 1993). CaM Kinase II has been shown to regulate diverse cellular functions including synaptic plasticity, neurotransmitter synthesis and release, gene expression, ion channel function, carbohydrate metabolism, cytoskeletal function, and Ca <sup>2+</sup> -homeostasis (Gleason et al., 2003; Soderling, 2000; Hudmon and Schulman, 2002). Phosphorylation of Thr286 on the kinase produces an autonomously active form of CaM Kinase II (Meng et al., 2003; Picciotto et al., 1993). Autophosphorylation of Thr305 inhibits the activity CaM Kinase II. Phosphorylation at this site appears to reduce the association of CaM Kinase II with the PSD and reduce LTP and learning (Elgersma et al., 2002).
Research Area	Cell Biology and Cellular Response antibody; Neuroscience antibody; Signaling Transduction antibody
Calculated Mw	54 kDa

## Images



ARG52238 anti-CaMKII phospho (Thr286) antibody WB image

Western blot: Rat cortex lysate showing phospho-specific immunolabeling of the ~50 kDa alpha-subunit and ~60 kDa beta-subunit of the CaM Kinase II protein phosphorylated at Thr 286 stained with ARG52238 anti-CaMKII phospho (Thr286) antibody.