

Product name:	CaMKII (Phospho-Thr 286) Mouse Monoclonal Antibody
Cat number:	MABN86145
Conjugate:	Unconjugated
Size:	100µL
Clone:	Monoclonal
Concentration:	1mg/ml
Host:	Mouse
Isotype:	IgG
Immunogen:	peptide
Reactivity:	Rat
Applications:	WB 1:500-1:2000,IHC 1:50-1:500,IP 1:20-1:50
Molecular Weight:	50kDa
Purification:	Affinity Purification
Form:	Liquid
Buffer:	Purified antibody in TBS with 0.05% sodium azide,1%BSA and 50% glycerol.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.
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 alpha, beta, gamma and delta, 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.