



# Mouse anti-Rat CaM Kinase monoclonal antibody, clone 7/DbN (CABT-B9181)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

<b>Immunogen</b>	Rat CaM Kinase Kinase aa. 341-504
<b>Isotype</b>	IgG2a
<b>Source/Host</b>	Mouse
<b>Species Reactivity</b>	Rat, Human, Dog
<b>Clone</b>	7/DbN
<b>Purification</b>	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
<b>Conjugate</b>	Unconjugated
<b>Applications</b>	WB; IF; IHC
<b>Format</b>	Liquid
<b>Concentration</b>	250 µg/ml
<b>Size</b>	50 µg, 150 µg
<b>Buffer</b>	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.
<b>Storage</b>	Store undiluted at -20°C.

## BACKGROUND

<b>Introduction</b>	Ca2+/Calmodulin (CaM)-dependent kinases are multifunctional kinases involved in a myriad of
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cellular functions such as neurotransmitter synthesis, long-term potentiation, and formation of spatial learning. A 68kDa CaM Kinase Kinase with homology to the Ca<sup>2+</sup>/CaM-dependent kinases, phosphorylates and activates Ca<sup>2+</sup>/CaM-dependent protein kinases I and IV, but not type II. This phosphorylation occurs on Ser/Thr residues and is Ca<sup>2+</sup> and CaM dependent. CaM Kinase Kinase is abundant in brain tissue, and is thought to be an upstream regulator in the Ca<sup>2+</sup>/CaM-dependent neural processes.

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<b>Keywords</b>	CAMK1; calcium/calmodulin-dependent protein kinase I; CAMKI; calcium/calmodulin-dependent protein kinase type 1; caM-KI; caMKI-alpha; caM kinase I alpha;
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## GENE INFORMATION

Entrez Gene ID [8536](#)

UniProt ID [B0YIY3](#)