Technical Data Sheet

Purified Mouse Anti-CaM Kinase Kinase

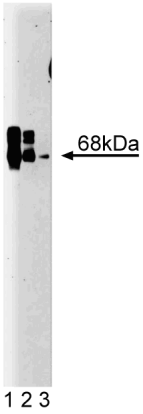
Product Information

Material Number:	**610545**
Size:	150 µg
Concentration:	250 µg/ml
Clone:	6/CaM Kinase Kinase
Immunogen:	Rat CaM Kinase Kinase aa. 341-504
Isotype:	Mouse IgG2a
Reactivity:	QC Test: Rat Tested in Development: Human, Dog
Target MW:	68 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

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

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Western blot analysis of CaM Kinase Kinase on rat brain lysate. *Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of anti-CaM Kinase Kinase.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20° C.

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development
Immunoprecipitation	Not Recommended
Immunohistochemistry	Not Recommended

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Suggested Companion Products

Catalog Number	Name	Size	Clone
611463	Rat Cerebrum Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

Edelman AM, Mitchelhill KI, Selbert MA. Multiple Ca(2+)-calmodulin-dependent protein kinase kinases from rat brain. Purification, regulation by Ca(2+)-calmodulin, and partial amino acid sequence. *J Biol Chem.* 1996; 271(18):10806-10810.(Biology)

Egea J, Espinet C, Soler RM. Neuronal survival induced by neurotrophins requires calmodulin. *J Cell Biol.* 2001; 154(3):585-597.(Clone-specific: Western blot)

Tokumitsu H, Enslen H, Soderling TR. Characterization of a Ca2+/calmodulin-dependent protein kinase cascade. Molecular cloning and expression of calcium/calmodulin-dependent protein kinase kinase. *J Biol Chem.* 1995; 270(33):19320-19324.(Biology)

Wayman GA, Walters MJ, Kolibaba K, Soderling TR, Christian JL. CaM kinase IV regulates lineage commitment and survival of erythroid progenitors in a non-cell-autonomous manner. *J Cell Biol.* 2000; 151(4):811-824.(Clone-specific: Western blot)

Wu JY, Means AR. Ca(2+)/calmodulin-dependent protein kinase IV is expressed in spermatids and targeted to chromatin and the nuclear matrix. *J Biol Chem.* 2000; 275(11):7994-7999.(Clone-specific: Western blot)