

## Anti-CAMK1

Mouse Monoclonal Antibody

Catalog # **C07-60M**

Lot # V336-1

### Cited Applications

- Western blot (1:1000)

Ideal working dilutions for each application should be empirically determined by the investigator.

### Specificity

Recognizes the CAMK1 protein

### Cross Reactivity

- Western blot human CAMK1

CAMK1 from other species may also be detectable

### Host/Isotype/Clone#

Mouse, IgG1, 5H8

### Immunogen

Recombinant full length human CAMK1 protein

### Formulation

0.1M TRIS pH 8.0, 0.1M glycine

### Stability

Store at 4°C (add 0.1% NaN<sub>3</sub>) for several months, and at -20°C for longer periods. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For optimal performance, avoid repeated handling and multiple freeze/thaw cycles.

### Scientific Background

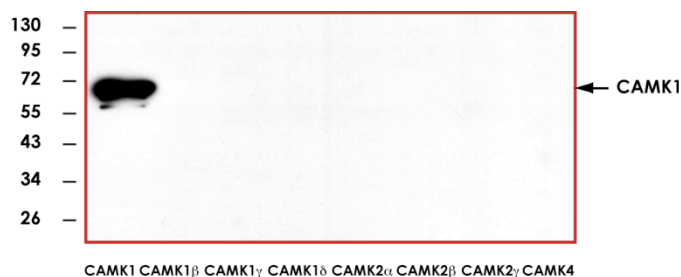
CAMK1 is a serine/threonine protein kinase that is a member of the multifunctional calcium/calmodulin-dependent protein kinase family. CAMK1 is ubiquitously expressed and phosphorylates a number of proteins including SYN1, SYN2, CREB and CFTR. In addition, Numb family of proteins may also be intracellular targets for CAMK1, and they may also be regulated by phosphorylation-dependent interaction with 14-3-3 protein (1). CAMK1 also plays an important role in the trafficking of HDAC7 between the cytoplasm and the nucleus. CAMK1 phosphorylates HDAC7 on multiple sites that lead to alteration in localization of HDAC7 (2).

### References

1. Tokumitsu, H. et al: Phosphorylation of Numb family proteins. Possible involvement of Ca<sup>2+</sup>/calmodulin-dependent protein kinases. *J Biol Chem.* 2005 Oct 21;280(42):35108-18.

2. Gao, C. et al: CRM1 mediates nuclear export of HDAC7 independently of HDAC7 phosphorylation and association with 14-3-3s. *FEBS Lett.* 2006 Sep 18;580(21):5096-104.

### Sample Data



Representative western blot with Anti-CAMK1(1:1000) using 20ng of CAMK1, CAMK1 $\beta$ , CAMK1 $\gamma$ , CAMK1 $\delta$ , CAMK2 $\alpha$ , CAMK2 $\beta$ , CAMK2 $\gamma$ , and CAMK4 recombinant protein.

## Anti-CAMK1

Mouse Monoclonal Antibody

Catalog Number	C07-60M
Specific Lot Number	V336-1
Purification	Affinity purified using Protein G
Concentration	1.0 $\mu$ g/ $\mu$ L
Stability	1yr At -20°C from date of shipment
Storage & Shipping	Store product at -20°C. For optimal storage, aliquot antibody into smaller quantities after centrifugation and store at recommended temperature. For optimal performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on ice packs.

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