



Phospho-Syntide-2 Mouse Monoclonal Antibody

Product Data Sheet

For Research Use Only, Not for use in diagnostic procedures

Phospho-Syntide-2
Mouse Monoclonal Antibody (Clone MS-6E6)
Cat# CY-M1023

100 µg (1 mg/ml x 100 µL)

Clone Name	Applications	Species Cross-reactivity	Molecular Wt.	Source Isotype
MS-6E6	E	N/A	N/A	Mouse IgG2b

Background: Syntide-2, a peptide based on phosphorylation site two of glycogen synthase, is an exogenous substrate designed for CaM-Kinase (calcium/calmodulin dependent kinases) in the serine-threonine kinase family. CaM-kinase II is a multifunctional calcium/calmodulin dependent protein kinase involved in neuronal functions. This anti-Phospho-Syntide-2 monoclonal antibody has been validated with CaM-kinase II, however it has the potential for use in evaluating other serine threonine kinases such as CaM-Kinase IIa, PKC μ , Akt1, Akt2, Akt3, and PKA.

The relative Vmax/Km ratios of the known Ca²⁺-dependent protein kinases for syntide-2 were determined to be as follows: protein kinase II, 100; protein kinase C, 22; phosphorylase kinase, 2; myosin light chain kinase, 0.005.

Specificity/Sensitivity: Phospho-Syntide-2 Antibody detects phosphorylated Syntide-2 only when phosphorylated at serine residue, by ELISA.

Source/Purification: Monoclonal antibody is produced by immunizing mice with a synthetic phosphopeptide Syntide-2, PLARTL(pS)VAGLPGKK, which is synthetic substrate for CaM-Kinase II (Calmodulin dependent protein kinase II). IgG is purified by protein A-sepharose chromatography.

Recommended Antibody Dilutions: ELISA for detection of CaM-Kinase II activity: 1 µg/mL

Storage: Supplied in 20 mM phosphate buffer (pH 7.5), 300 mM NaCl, 50 % glycerol. Store at -20°C.

Applications Key: WB:Western Blotting IP:Immunoprecipitation IHC:Immunohistochemistry IC:Immunocytochemistry F:Flow cytometry E:ELISA FP:Fluorescence Polarization assay

Species Cross-Reactivity Key: H:human M:mouse R:rat Hm:hamster Mk:monkey Mi:mink C:chicken X:*Xenopus* Z:zebra fish All:all species expected Species enclosed in parentheses are predicted to react based on 100% sequence homology. N/A: Not Applicable



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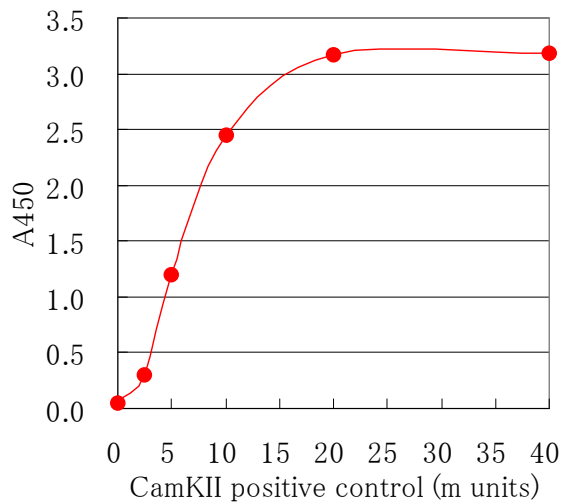
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Selected Application References:

1. Hashimoto Y, Soderling TR. Calcium . calmodulin-dependent protein kinase II and calcium phospholipid-dependent protein kinase activities in rat tissues assayed with a synthetic peptide. Arch Biochem Biophys. 252(2):418-25, 1987
2. CM Schworer, RJ Colbran, and TR Soderling Reversible generation of a Ca²⁺-independent form of Ca²⁺(calmodulin)- dependent protein kinase II by an autophosphorylation mechanism J. Biol. Chem., 261: 8581 – 8584, 1986

Fig.1 ELISA for measurement of recombinant CaM-kinase II activity using Phospho-Syntide-2 Monoclonal antibody (MS-6E6) in CycLex CaM-kinase II Assay/Inhibitor Screening Kit (Cat# CY-1173)



Related Products

- * CaM kinase II Assay/Inhibitor Screening Kit: Cat# CY-1173
- * CaM kinase II Positive Control: Cat# CY-E1173

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