

## Anti-Phospho-MARK2 (Thr595)

Rabbit Polyclonal Antibody

Catalog # **M44-65R**

Lot # B3216-56

### Cited Applications

ELISA, IF, WB

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

### Specificity

Recognizes the human MARK2 protein phosphorylated at Threonine 595

### Cross Reactivity

Human, Dog, Bovine, Mouse and Rat

### Host/Isotype/Clone#

Rabbit, IgG

### Immunogen

The antibody was produced against synthesized peptide corresponding to amino acids surrounding phosphorylated Thr595 of human MARK2 isoform  $\alpha$ .

### Formulation

0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 + 0.01% (w/v) Sodium Azide

### Stability

1yr at  $-20^{\circ}\text{C}$  from date of shipment

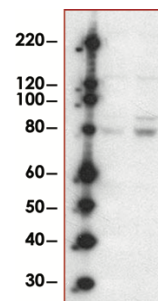
### Scientific Background

MARK2 or microtubule affinity-regulating kinase 2 is a member of the Par-1 family of serine/threonine protein kinases. MARK2 is an important regulator of cell polarity in epithelial and neuronal cells and controls the stability of microtubules through phosphorylation and inactivation of several microtubule-associated proteins (1). MARK2 is a key target of *H. pylori* CagA in the disorganization of gastric epithelial architecture underlying mucosal damage, inflammation, and carcinogenesis (2). MARK2 phosphorylates kinesin-like motor protein GAKIN/KIF13B to regulate axon formation. MARK2 function in the establishment of T cell polarity following engagement to an APC.

### References:

1. Yoshimura, Y. et.al: Polarity-regulating kinase partitioning-defective 1/microtubule affinity-regulating kinase 2 negatively regulates development of dendrites on hippocampal neurons. *J. Neurosci.* 27:13098-13107, 2010.
2. Saadat, I. et.al: Helicobacter pylori CagA targets PAR1/MARK kinase to disrupt epithelial cell polarity. *Nature* 447: 330-333, 2007.

### Sample Data



Western Blot of Anti-Phospho-MARK2 (Thr595) (1:500 dilution). Lane 1: wild type Jurkat cells. Lane 2: wild type Jurkat cells stimulated with CD3/CD28 (T-cell receptor stimulation). Load: 35 µg per lane.

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Purification	Immunoaffinity chromatography
Stability	1yr at $-20^{\circ}\text{C}$ from date of shipment
Storage & Shipping	Store product at $-20^{\circ}\text{C}$ . 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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