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Datasheet for 600-401-895

MARK2 phospho T595 Antibody

Overview

Description:	Anti-MARK2 pT595 (RABBIT) Antibody - 600-401-895
Item No.:	600-401-895
Size:	100 µg
Applications:	ELISA, WB
Reactivity:	Human
Host Species:	Rabbit

Product Details

Background:	MARK2 pT595 antibody is designed, produced, and validated as part of a collaboration between Rockland and the National Cancer Institute (NCI) and is suitable for Cancer, Immunology and Nuclear Signaling research. This antibody recognizes a regulatory phosphorylation on a kinase that is critical to regulation of microtubules, cell cycle and immune responses. MARK2 refers to MAP/microtubule affinity-regulating kinase 2 isoform a [Homo sapiens]. EMK (ELKL Motif Kinase) is a small family of ser/thr protein kinases involved in the control of cell polarity, microtubule stability and cancer. Several cDNA clones have been isolated that encode two isoforms of the human ser/thr protein kinase EMK1 called MARK2. These isoforms were characterized by the presence of a 162-bp alternative exon that gives rise to two forms, one containing the exon and the other one lacking it. Both forms were found to be co-expressed in a number of selected cell lines and tissue samples. Human MARK2 was shown to be encoded by a single mRNA that is ubiquitously expressed. This transcription variant includes the alternative exon in the coding region and therefore codes for a longer protein. Multiple splice variants exist for this protein.
Synonyms:	rabbit anti-MARK2 pT595 antibody, MARK-2, MARK 2, ELKL motif kinase 1, EMK1, EMK-1, MAP/microtubule affinity regulating kinase 2 antibody, PAR1 homolog antibody, Serine/threonine protein kinase MARK2 antibody, Par-1b, Par1b, PAR1 homolog b
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	MARK2
Reactivity:	Human
PTM Specificity:	Phosphorylation
Immunogen Type:	Conjugated Peptide
Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids surrounding T595 of Human MARK2 isoform a. The immunogen peptide was phosphorylated at the residue corresponding to T595.
Purity/Specificity:	MARK2 pT595 affinity purified antibody is directed against the phosphorylated form of human MARK2 at the pT595 residue. The product was affinity purified from monospecific antiserum by immunoaffinity chromatography. Antiserum was first purified against the phosphorylated form of the immunizing peptide. The resultant affinity purified antibody was then cross-adsorbed against the non-phosphorylated form of the immunizing peptide. Reactivity occurs against human MARK2 pT595 protein and the antibody is specific for the phosphorylated form of the protein. Reactivity with non-phosphorylated human MARK2 is minimal by ELISA. Expect at least partial reactivity with other isoforms of MARK. The immunogen sequence is present in all forms identified to date and localizes to T595 on MARK2, T587 on MARK3, T591 on MARK1 and T568 on MARK4. A BLAST analysis was used to suggest reactivity with this protein from human, dog, bovine, mouse and rat sources based on 100% homology for the immunogen sequence. Cross reactivity with MARK2 homologues from other sources has not been determined.
Relevant Links:	• UniProtKB - Q7KZI7 • NCBI - Q7KZI7.2 • GeneID - 2011

Application Details

Tested Applications:	ELISA, WB
Application Note:	Anti-MARK2pT595 antibody has been tested for use in ELISA and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 83 kDa corresponding to MARK2 by western blotting in the appropriate cell lysate or extract.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:1,000 - 1:3,000
IF:	User Optimized
WB:	1:250 - 1:1,000

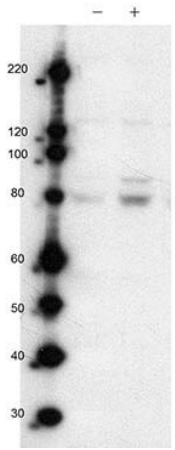
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

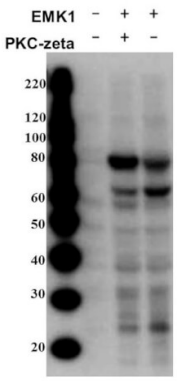
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot
Western Blot of Rabbit anti-MARK2pT595 antibody. 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. Primary antibody: MARK2 pT595 antibody at 1:500 for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: ~83 kDa for MARK2pT595.



Western Blot

Western Blot of Rabbit anti-MARK2pT595 antibody. Lane 1: 293T cells untransfected. Lane 2: 293T cells transfected with MARK2 (EMK1) and PKC-zeta. Lane 3: 293T cells transfected with MARK2 (EMK1). Load: 35 µg per lane. Primary antibody: MARK2pT595 antibody at 1:1000 for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: ~83kDa kDa for MARK2 pT595. Other band(s): MARK2pT595 splice variants and isoforms.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.