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Datasheet for 600-401-924

Mer2 phospho S30 Antibody

Overview

Description:	Anti-Mer2 pS30 (RABBIT) Antibody - 600-401-924
Item No.:	600-401-924
Size:	100 µg
Applications:	ELISA, WB
Reactivity:	S. cerevisiae
Host Species:	Rabbit

Product Details

Background:	This 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. Mer2 (also known as meiotic recombination 2 protein) is a chromosomal protein that is critical for meiotic recombination and progression. It is phosphorylated at two serine residues, S30 and S271 by the yeast Cdk1 cyclin- dependent kinase homolog. This phosphorylation is S-phase specific, and thus has the potential to be a specific assay for S-phase cyclin-dependent kinases. Moreover, there are hints that the phosphorylation may be a mark of replication fork passage, which would indicate that S-phase CDK associates with the replication fork.
Synonyms:	rabbit anti-Mer2 pS30 antibody, Meiotic recombination 2 protein, Recombination protein 107, REC107, YJR021C, J1462
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	MER2, REC107
Reactivity:	S. cerevisiae
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 phospho-peptide corresponding to amino acids 26-35 of Saccharomyces cerevisiae Mer2 protein.
Purity/Specificity:	This affinity-purified antibody is directed against the phosphorylated form of Saccharomyces cerevisiae Mer2 protein at the pS30 residue. The product was affinity purified from monospecific antiserum by immunoaffinity purification. 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 peptide to remove any unwanted reactivities.
Relevant Links:	• UniProtKB - P21651 • NCBI - 1170924 • GeneID - 853478

Application Details

Tested Applications:	ELISA, WB
Application Note:	This affinity purified antibody has been tested for use in ELISA and by western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 50 kDa in size corresponding to phosphorylated Mer2 protein by western blotting in the appropriate cell lysate or extract. Less than 2% reactivity is observed against the non-phosphorylated form of the immunizing peptide. This antibody is phospho specific for Mer2 phosphorylated at the pS30 residue. Preparation of extracts from cells 4hr after initiation of meiosis is suggested.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:5,000 - 1:25,000
IP:	1:100
WB:	1:1,000 - 1:10,000

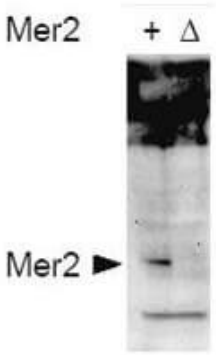
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0mg/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 using Rockland's affinity purified anti-S.cerevisiae Mer2 pS30 antibody shows detection of phosphorylated Mer2 in whole cell extracts. Cells were either wild type (+) or contained mer2 deletions (D). Extracts were prepared from cells 4hr after initiation of meiosis. Proteins were obtained using TCA precipitation. The primary antibody was used at a 1:7,500 dilution. Secondary antibody was used at 1:5,000 dilution. Personal Communication. Michael Lichten, NIH, CCR, Bethesda, MD.



Western Blot
Western blot using Rockland's affinity purified anti-S.cerevisiae Mer2 pS30 antibody shows detection of phosphorylated Mer2 but not phosphatase treated or mutant cells. Lane 1 contains Mer2-myc protein detected in wild type cells after first immunoprecipitating the protein using anti-myc antibody. Cells were harvested 4 h after the initiation of meiosis and therefore contain mostly phosphorylated Mer2. Lane 2 contains the same preparation after treatment with phosphatase. Lane 3 contains Mer2-S30A protein as a phosphorylation control. This antibody appears to be specific for phosphorylated Mer2 at the S30 position with negligible cross reactivity against unphosphor-ylated protein. The primary antibody was used at a 1:5,000 dilution. Personal Communication. Michael Lichten, NIH, CCR, Bethesda, MD.

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