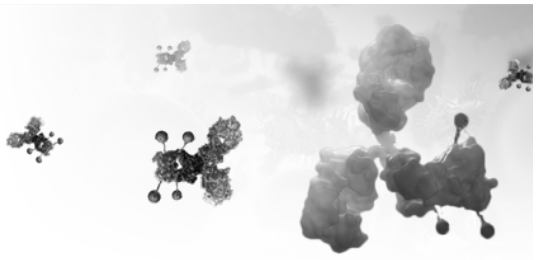

S. cerevisiae RPO21 (phospho S2) blocking peptide (DAG-P1935)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Antigen Description	DNA-dependent RNA polymerase catalyzes the transcription of DNA into RNA using the four ribonucleoside triphosphates as substrates. Largest and catalytic component of RNA polymerase II which synthesizes mRNA precursors and many functional non-coding RNAs. Forms the polymerase active center together with the second largest subunit. Pol II is the central component of the basal RNA polymerase II transcription machinery. It is composed of mobile elements that move relative to each other. RPB1 is part of the core element with the central large cleft, the clamp element that moves to open and close the cleft and the jaws that are thought to grab the incoming DNA template. At the start of transcription, a single-stranded DNA template strand of the promoter is positioned within the central active site cleft of Pol II. A bridging helix emanates from RPB1 and crosses the cleft near the catalytic site and is thought to promote translocation of Pol II by acting as a ratchet that moves the RNA-DNA hybrid through the active site by switching from straight to bent conformations at each step of nucleotide addition. During transcription elongation, Pol II moves on the template as the transcript elongates. Elongation is influenced by the phosphorylation status of the C-terminal domain (CTD) of Pol II largest subunit (RPB1), which serves as a platform for assembly of factors that regulate transcription initiation, elongation, termination and mRNA processing. Acts as a RNA-dependent RNA polymerase when associated with small delta antigen of Hepatitis delta virus, acting both as a replicate and transcriptase for the viral RNA circular genome.
Conjugate	Unconjugated
Applications	WB, BL
Sequence Similarities	Belongs to the RNA polymerase beta chain family.
Format	Liquid
Preservative	None
Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw

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cycles. Information available upon request.

GENE INFORMATION

Gene Name	RPO21 Rpo21p [Saccharomyces cerevisiae S288c]
Synonyms	RPB1; RPB220; SUA8; Rpo21p;
Entrez Gene ID	851415
mRNA Refseq	NM_001180200.1
Protein Refseq	NP_010141.1
UniProt ID	P04050
Chromosome Location	chromosome: IV
Pathway	DNA Repair, organism-specific biosystem; Dual incision reaction in TC-NER, organism-specific biosystem; Eukaryotic Transcription Initiation, organism-specific biosystem; Formation of the Early Elongation Complex, organism-specific biosystem; Formation of transcription-coupled NER (TC-NER) repair complex, organism-specific biosystem; Gene Expression, organism-specific biosystem; MicroRNA (miRNA) Biogenesis, organism-specific biosystem; Nucleotide Excision Repair, organism-specific biosystem; Proc
Function	DNA binding; DNA-directed RNA polymerase activity; contributes_to RNA polymerase II activity; contributes_to RNA-directed RNA polymerase activity; metal ion binding; nucleotidyltransferase activity; transferase activity;

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