bs-6972R **[Primary Antibody]**

RNA polymerase II Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 5430 **SWISS:** P24928

Target: RNA polymerase II

Immunogen: KLH conjugated synthetic peptide derived from human Pol II/RNA polymerase II: 101-200/1970.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: 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.

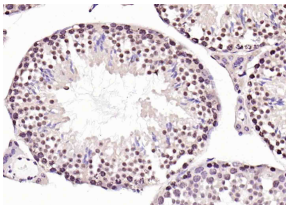
Applications: **IHC-P** (1:100-500)
IHC-F (1:100-500)
IF (1:50-200)

Reactivity: Mouse, Rat (predicted: Human, Pig, Cow, Dog, Horse)

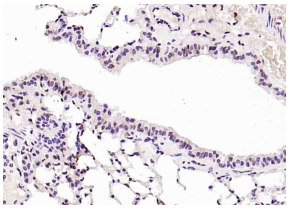
Predicted MW.: 217 kDa

Subcellular Location: Nucleus

VALIDATION IMAGES



Paraformaldehyde-fixed, paraffin embedded (mouse testis); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (RNA polymerase II) Polyclonal Antibody, Unconjugated (bs-6972R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (mouse lung); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (RNA polymerase II) Polyclonal Antibody, Unconjugated (bs-6972R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

SELECTED CITATIONS

- **[IF=6.048]** Hao Qi. et al. Methionine and leucine induce ARID1A degradation to promote mTOR expression and milk synthesis in mammary epithelial cells. J Nutr Biochem. 2021 Nov;:108924 IP ;Cow. 34843932
- **[IF=6.1]** Hao Qi. et al. Methionine and Leucine Promote mTOR Gene Transcription and Milk Synthesis in Mammary Epithelial Cells through the eEF1Bα-UBR5-ARID1A Signaling. J AGR FOOD CHEM. 2024;XXXX(XXX):XXX-XXX ChIP ;Bovine. 38725145
- **[IF=6.117]** Gang Lin. et al. ARID1B blocks methionine-stimulated mTOR activation to inhibit milk fat and protein synthesis in and proliferation of mouse mammary epithelial cells. J NUTR BIOCHEM. 2023 Jan;:109274 ChIP ;Mouse. 36681308
- **[IF=6.1]** Liping Xie. et al. Methionine Promotes Milk Synthesis through the BRCC36-BRG1-mTOR Signaling Axis in Mammary Epithelial Cells. J AGR FOOD CHEM. 2024;XXXX(XXX):XXX-XXX ChIP ;Mouse. 38240727
- **[IF=4.26]** Dou et al. STMN1 Promotes Progesterone Production Via StAR Up-regulation in Mouse Granulosa Cells. (2016) Sci.Re. 6:26691 ChIP ;Mouse. 27270953