

# Product Datasheet

## RNA Polymerase II/POLR2A [p Ser2] Antibody (C.15200005) - BSA Free NBP2-59215

Unit Size: 50 ug

Store at -20C. Avoid freeze-thaw cycles.

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**NBP2-59215**

RNA Polymerase II/POLR2A [p Ser2] Antibody (C.15200005) - BSA Free

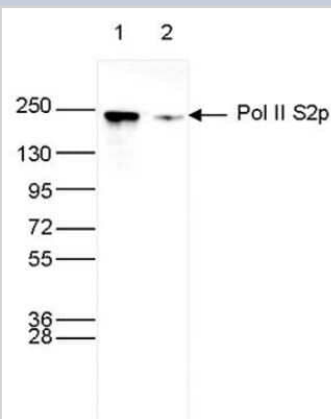
Product Information	
Unit Size	50 ug
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	C.15200005
Preservative	0.05% Sodium Azide
Isotype	IgG1
Purity	Protein A purified
Buffer	PBS

Product Description	
Host	Mouse
Gene ID	5430
Gene Symbol	POLR2A
Species	Human, C. elegans, Zebrafish
Immunogen	The exact immunogen is proprietary information.

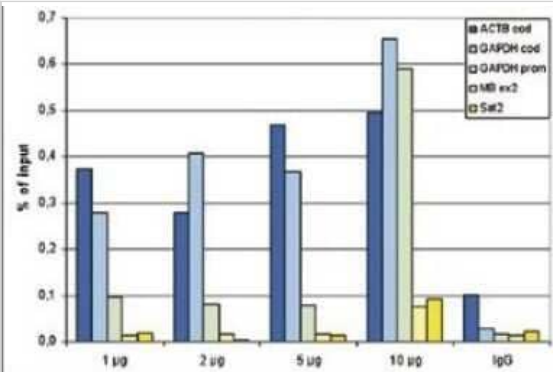
Product Application Details	
Applications	Western Blot, ELISA, Immunocytochemistry/ Immunofluorescence, Chromatin Immunoprecipitation (ChIP), Chromatin Immunoprecipitation Sequencing, Knockdown Validated
Recommended Dilutions	Western Blot 1:1000, ELISA 1:3000, Immunocytochemistry/ Immunofluorescence 1:500, Chromatin Immunoprecipitation (ChIP) 1-2 ug/IP, Chromatin Immunoprecipitation Sequencing 1 - 2 ug/ChIP, Knockdown Validated

**Images**

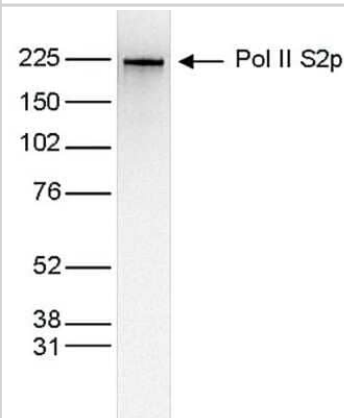
Western Blot: RNA Polymerase II/POLR2A [p Ser2] Antibody (C.15200005) [NBP2-59215] - Whole cell extracts (40 ug) from HeLa cells transfected with Pol II siRNA (lane 2) and from an untransfected control (lane 1) were analysed by Western blot using the antibody against Pol II S2p diluted 1:1,000 in TBS-Tween containing 5% skimmed milk. The position of the protein of interest is indicated on the right; the marker (kDa) is shown on the left.



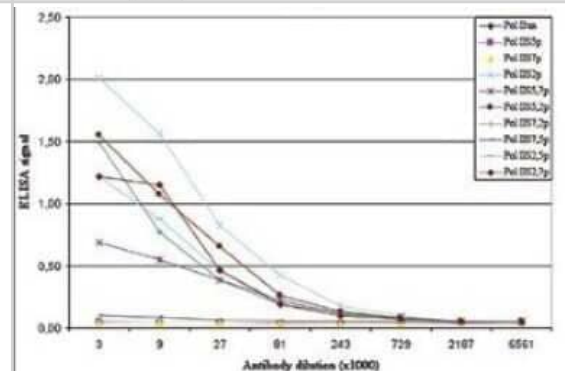
**Chromatin Immunoprecipitation: RNA Polymerase II/POLR2A [p Ser2] Antibody (C.15200005) [NBP2-59215]** - ChIP assays were performed using human HeLa cells, the antibody against Pol II S2p and optimized PCR primer pairs for qPCR. ChIP was performed with a ChIP-seq kit, using sheared chromatin from 1 million cells. A titration consisting of 1, 2, 5 and 10 ug of antibody per ChIP experiment was analyzed. IgG (2 ug/IP) was used as a negative IP control. Quantitative PCR was performed with primers specific for the coding region of the constitutively expressed GAPDH and ACTB genes, used as positive controls, and for exon 2 of the inactive myoglobin (MB) gene and the Sat2 satellite repeat, used as negative controls. Figure shows the recovery, expressed as a % of input (the relative amount of immunoprecipitated DNA compared to input DNA after qPCR analysis).



**Western Blot: RNA Polymerase II/POLR2A [p Ser2] Antibody (C.15200005) [NBP2-59215]** - Nuclear extracts (25 ug) from HeLa cells were analysed by Western blot using the antibody against Pol II S2p diluted 1:1,000 in TBS-Tween containing 5% skimmed milk. The position of the protein of interest is indicated on the right; the marker (kDa) is shown on the left.



**ELISA: RNA Polymerase II/POLR2A [p Ser2] Antibody (C.15200005) [NBP2-59215]** - Cross reactivity of the antibody directed against Pol IIS2p. To test the specificity an ELISA was performed using a serial dilution of the antibody against Pol IIS2p. The wells were coated with peptides containing the unmodified C-terminal repeat sequence as well as different phosphorylated peptides. Figure shows the specificity of the antibody for the S2 phosphorylation.



**Immunofluorescence: RNA Polymerase II/POLR2A [p Ser2] Antibody (C.15200005) [NBP2-59215]** - HeLa cells were stained with the antibody (left) diluted 1:500 in blocking solution followed by an anti-mouse antibody conjugated to Alexa Fluor 594. The middle panel shows staining of the nuclei with DAPI. A merge of the two stainings is shown on the right.



## Publications

Lyu Y, Yang Y, Talwar V et al Hypoxia-inducible factor 1 recruits FACT and RNF20/40 to mediate histone ubiquitination and transcriptional activation of target genes Cell Rep 2024-03-22 [PMID: 38517892] (ChIP, Human)

Yang Y, Lu H, Chen C et al. HIF-1 Interacts with TRIM28 and DNA-PK to release paused RNA polymerase II and activate target gene transcription in response to hypoxia Nature communications 2022-01-14 [PMID: 35031618] (Chemotaxis)

Johansson JA, Marie KL, Lu Y et al. PRL3-DDX21 Transcriptional Control of Endolysosomal Genes Restricts Melanocyte Stem Cell Differentiation Dev. Cell 2020-07-08 [PMID: 32652076] (Chemotaxis, Zebrafish)





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### Products Related to NBP2-59215

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HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)
H00005430-Q01-10ug	Recombinant Human RNA Polymerase II/POLR2A GST (N-Term) Protein

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### Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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