

Pol II RPB6 (FL-127): sc-28711

BACKGROUND

RNA polymerase II (Pol II) is a multi-subunit enzyme responsible for the transcription of protein-coding genes. Transcription initiation requires recruitment of the complete transcription machinery to a promoter via solicitation by activators and chromatin remodeling factors. Pol II can coordinate 10 to 14 subunits. This complex interacts with the promoter regions of genes and a variety of elements and transcription factors. The DNA binding domain of the polymerase is a groove where TFIIIB orients the DNA for unwinding and transcription.

REFERENCES

1. Bushnell, D.A., et al. 2004. Structural basis of transcription: an RNA polymerase II-TFIIIB co-crystal at 4.5 Angstroms. *Science* 303: 983-988.
2. Palangat, M., et al. 2004. Downstream DNA selectively affects a paused conformation of human RNA polymerase II. *J. Mol. Biol.* 341: 429-442.
3. Zhong, S., et al. 2004. Epidermal growth factor enhances cellular TATA binding protein levels and induces RNA polymerase I- and III-dependent gene activity. *Mol. Cell. Biol.* 24: 5119-5129.

CHROMOSOMAL LOCATION

Genetic locus: POLR2A (human) mapping to 22q13.1; Polr2a (mouse) mapping to 15 E1.

SOURCE

Pol II RPB6 (FL-127) is a rabbit polyclonal antibody raised against amino acids 1-127 representing full length Pol II RPB6 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Pol II RPB6 (FL-127) is recommended for detection of Pol II RPB6 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Pol II RPB6 (FL-127) is also recommended for detection of Pol II RPB6 in additional species, including equine, canine, bovine, porcine and avian.

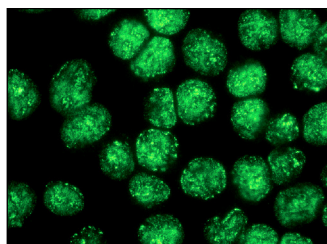
Suitable for use as control antibody for Pol I/II/III RPB6 siRNA (h): sc-45868, Pol I/II/III RPB6 siRNA (m): sc-45869, Pol I/II/III RPB6 shRNA Plasmid (h): sc-45868-SH, Pol I/II/III RPB6 shRNA Plasmid (m): sc-45869-SH, Pol I/II/III RPB6 shRNA (h) Lentiviral Particles: sc-45868-V and Pol I/II/III RPB6 shRNA (m) Lentiviral Particles: sc-45869-V.

Molecular Weight of Pol II RPB6: 15 kDa.

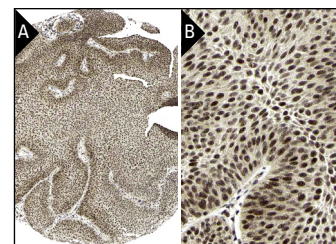
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



Pol II RPB6 (FL-127): sc-28711. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.



Pol II RPB6 (FL-127): sc-28711. Immunoperoxidase staining of formalin fixed, paraffin-embedded human urothelial cancer tissue showing nuclear staining of tumor cells at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

SELECT PRODUCT CITATIONS

1. Akhrymuk, I., et al. 2012. Evasion of the innate immune response: the old world α virus nsP2 protein induces rapid degradation of Rpb1, a catalytic subunit of RNA polymerase II. *J. Virol.* 86: 7180-7191.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **Pol II RPB6 (E-8): sc-271309** or **Pol I/II/III RPB6 (B6-1): sc-21751**, our highly recommended monoclonal alternatives to Pol II RPB6 (FL-127).