

Pol III RPC39 (m): 293T Lysate: sc-127364

BACKGROUND

Eukaryotes produce three distinct classes of RNA polymerase, Pol I, II and III. Each polymerase is responsible for the synthesis of a different class of RNA. RNA polymerase I (Pol I) transcribes the rRNA (ribosomal RNA) genes for the precursor of the 28S, 18S and 5.8S molecules of the ribosome. RNA polymerase II transcribes protein-encoding genes into mRNA (messenger RNA) and snRNA (small nuclear RNA) genes into snRNAs that influence the processing of other classes of RNA. RNA polymerase III (Pol III) transcribes the 5S rRNA genes and all of the tRNA (transfer RNA) genes.

REFERENCES

1. Bushnell, D.A., et al. 2004. Structural basis of transcription: an RNA polymerase II-TFIIB cocrystal 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.
4. Hirsch, H.A., et al. 2004. Distinct mechanisms for repression of RNA polymerase III transcription by the retinoblastoma tumor suppressor protein. *Mol. Cell. Biol.* 24: 5989-5999.
5. White, R.J. 2004. RNA polymerase III transcription and cancer. *Oncogene* 23: 3208-3216.
6. Cabart, P., et al. 2004. BRCA1 cooperates with NUFIP and P-TEF β to activate transcription by RNA polymerase II. *Oncogene* 23: 5316-5329.
7. Svejstrup, J.Q. 2004. The RNA polymerase II transcription cycle: cycling through chromatin. *Biochim. Biophys. Acta* 1677: 64-73.
8. Cramer, P. 2004. Structure and function of RNA polymerase II. *Adv. Protein Chem.* 67: 1-42.
9. Comai, L. 2004. Mechanism of RNA polymerase I transcription. *Adv. Protein Chem.* 67: 123-155.

CHROMOSOMAL LOCATION

Genetic locus: Polr3f (mouse) mapping to 2 G1.

PRODUCT

Pol III RPC39 (m): 293T Lysate represents a lysate of mouse Pol III RPC39 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

Pol III RPC39 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Pol III RPC39 antibodies. Recommended use: 10-20 μ l per lane.

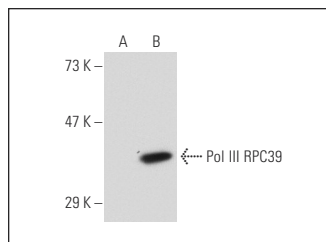
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Pol III RPC39 (C39-1): sc-21753 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Pol III RPC39 expression in Pol III RPC39 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



Pol III RPC39 (RPC39): sc-21753. Western blot analysis of Pol III RPC39 expression in non-transfected: sc-117752 (A) and mouse Pol III RPC39 transfected: sc-127364 (B) 293T whole cell lysates.

RESEARCH USE

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