# UBTFL1 (V-22): sc-133752



The Power to Question

# **BACKGROUND**

The transcription of ribosomal RNA genes by RNA polymerase I (Pol I) is tightly coordinated with the growth state of the cell. In addition to Pol I, transcription of ribosomal genes requires the trans-activating factor UBF (upstream binding factor). UBF functions by binding to DNA elements within the RNA gene promoter and enhancer regions and directly associating with Pol I, tethering it to the promoter complex.Related to UBF, UBTFL1 (Upstream-binding factor 1-like protein 1) is a 393 amino acid nuclear protein that contains two HMG box DNA-binding domains, which play important architectural roles in assembly of nucleoprotein complexes. The gene encoding UBTFL1 maps to human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome.

# **REFERENCES**

- 1. Jantzen, H.M., et al. 1990. Nucleolar transcription factor hUBF contains a DNA-binding motif with homology to HMG proteins. Nature 344: 830-836.
- 2. Voit, R., et al. 1992. The nucleolar transcription factor mUBF is phosphory-lated by casein kinase II in the C-terminal hyperacidic tail which is essential for transactivation. EMBO J. 11: 2211-2218.
- Kuhn, A., et al. 1993. The nucleolar transcription activator UBF relieves Ku antigen-mediated repression of mouse ribosomal gene transcription. Nucleic Acids Res. 21: 2057-2063.
- Codony-Servat, J., et al. 1996. The two isoforms of the 90 kDalton nucleolus organizer region autoantigen (upstream binding factor) bind with different avidity to DNA modified by the antitumor drug cisplatin. Biochem. Pharmacol. 51: 1131-1136.
- 5. Grummt, I. 1999. Regulation of mammalian ribosomal gene transcription by RNA polymerase I. Prog. Nucleic Acid Res. Mol. Biol. 62: 109-154.
- Hannan, K.M., et al. 2000. Rb and p130 regulate RNA polymerase I transcription: Rb disrupts the interaction between UBF and SL-1. Oncogene 19: 4988-4999.
- 7. Panov, K.I., et al. 2001. A step subsequent to preinitiation complex assembly at the ribosomal RNA gene promoter is rate limiting for human RNA polymerase I-dependent transcription. Mol. Cell. Biol. 21: 2641-2649.

# CHROMOSOMAL LOCATION

Genetic locus: UBTFL1 (human) mapping to 11q14.3.

# **SOURCE**

UBTFL1 (V-22) is an affinity purified rabbit polyclonal antibody raised against synthetic LOC642623 peptide of human origin.

# **PRODUCT**

Each vial contains 50  $\mu g$  IgG in 500  $\mu l$  PBS with <0.1% sodium azide, 0.1% gelatin and <0.02% sucrose.

# **STORAGE**

Store at  $4^{\circ}$  C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## **APPLICATIONS**

UBTFL1 (V-22) is recommended for detection of UBTFL1 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

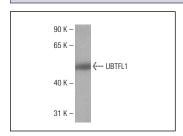
Suitable for use as control antibody for UBTFL1 siRNA (h): sc-96617, UBTFL1 shRNA Plasmid (h): sc-96617-SH and UBTFL1 shRNA (h) Lentiviral Particles: sc-96617-V.

Molecular Weight of UBTFL1: 46 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).

#### DATA



UBTFL1 (V-22): sc-133752. Western blot analysis of UBTFL1 expression in MCF7 whole cell lysate.

# **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.



Try **UBTFL1/3/5/6 (F-4):** sc-398786, our highly recommended monoclonal alternative to UBTFL1 (V-22).

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com