# SANTA CRUZ BIOTECHNOLOGY, INC.

# TFIIIC35 (G-13): sc-169587



BACKGROUND

RNA polymerase (pol) III synthesizes tRNA, 5s rRNA, 7SL RNA and U6 snRNA and is overexpressed in many transformed cell lines and tumors *in vivo*, since cells must duplicate its protein components before division. Therefore, in order to maintain rapid growth, cells must produce a high level of Pol III transcribed RNA, which requires the presence of the TFIIB and TFIIIC2 transcription factor complexes. The TFIIIC2 complex recruits RNA pol III and TFIIIB to promoter elements and may be a key component in the deregulation of malignant cells. TFIIIC35 (transcription factor IIIC 35 kDa subunit), also known as GTF3C6 (general transcription factor 3C polypeptide 6), CDA020 or NPD020, is a 213 amino acid nuclear protein that belongs to the TFIIIC subunit 6 family. TFIIIC35 exists as a member of the DNA-binding TFIIIC2 subcomplex, which interacts with tRNA and virus-associated RNA promoters, and consists of TFIIIC35, TFIIIC63, TFIIIC90, TFIIIC102, TFIIIC110 and TFIIIC220.

## REFERENCES

- Lagna, G., Kovelman, R., Sukegawa, J. and Roeder, R.G. 1994. Cloning and characterization of an evolutionarily divergent DNA-binding subunit of mammalian TFIIIC. Mol. Cell. Biol. 14: 3053-3064.
- Hsieh, Y.J., Kundu, T.K., Wang, Z., Kovelman, R. and Roeder, R.G. 1999. The TFIIIC90 subunit of TFIIIC interacts with multiple components of the RNA polymerase III machinery and contains a histone-specific acetyltransferase activity. Mol. Cell. Biol. 19: 7697-7704.
- 3. Brown, T.R., Scott, P.H., Stein, T., Winter, A.G. and White, R.J. 2000. RNA polymerase III transcription: its control by tumor suppressors and its deregulation by transforming agents. Gene Expr. 9: 15-28.
- Schramm, L., Pendergrast, P.S., Sun, Y. and Hernandez, N. 2000. Different human TFIIIB activities direct RNA polymerase III transcription from TATAcontaining and TATA-less promoters. Genes Dev. 14: 2650-2663.
- Winter, A.G., Sourvinos, G., Allison, S.J., Tosh, K., Scott, P.H., Spandidos, D.A. and White, R.J. 2000. RNA polymerase III transcription factor TFIIIC2 is overexpressed in ovarian tumors. Proc. Natl. Acad. Sci. USA 97: 12619-12624.
- Dumay-Odelot, H., Marck, C., Durrieu-Gaillard, S., Lefebvre, O., Jourdain, S., Prochazkova, M., Pflieger, A. and Teichmann, M. 2007. Identification, molecular cloning, and characterization of the sixth subunit of human transcription factor TFIIIC. J. Biol. Chem. 282: 17179-17189.
- 7. Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 611784. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

## CHROMOSOMAL LOCATION

Genetic locus: GTF3C6 (human) mapping to 6q21; Gtf3c6 (mouse) mapping to 10 B1.

## SOURCE

TFIIIC35 (G-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TFIIIC35 of human origin.

# PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-169587 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

# **APPLICATIONS**

TFIIIC35 (G-13) is recommended for detection of TFIIIC35 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other TFIIIC family members.

TFIIIC35 (G-13) is also recommended for detection of TFIIIC35 in additional species, including bovine.

Suitable for use as control antibody for TFIIIC35 siRNA (h): sc-95230, TFIIIC35 siRNA (m): sc-154233, TFIIIC35 shRNA Plasmid (h): sc-95230-SH, TFIIIC35 shRNA Plasmid (m): sc-154233-SH, TFIIIC35 shRNA (h) Lentiviral Particles: sc-95230-V and TFIIIC35 shRNA (m) Lentiviral Particles: sc-154233-V.

Molecular Weight of TFIIIC35: 24 kDa.

#### **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluo-rescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

#### **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.