# SANTA CRUZ BIOTECHNOLOGY, INC.

# CTF18 (M-102): sc-98378



### BACKGROUND

CTF18 (chromosome transmission fidelity factor 18 homolog) is a 975 amino acid protein encoded by the human gene CHTF18. CTF18 is a protein that is structurally related to the Rad24 and RFC (replication factor C) proteins. CTF18 is believed to form a novel RFC complex and functions redundantly with Rad24 in the DNA replication block checkpoint. The CTF18-RFC complex is a sevensubunit structure that consists of the four small subunits of RFC, together with CTF18, DCC1 and CTF8. This RFC complex is responsible for loading the replication clamp PCNA (proliferating cell nuclear antigen) onto DNA and functions in DNA replication and repair. Regulated unloading of PCNA during the progression and termination of DNA replication does not seem to be a function of the CTF18-RFC complex.

#### REFERENCES

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- 2. Ohta, S., Shiomi, Y., Sugimoto, K., Obuse, C. and Tsurimoto, T. 2002. A proteomics approach to identify proliferating cell nuclear antigen (PCNA)binding proteins in human cell lysates. Identification of the human CHL12/ RFCs2-5 complex as a novel PCNA-binding protein. J. Biol. Chem. 277: 40362-40367.
- 3. Bermudez, V.P., Maniwa, Y., Tappin, I., Ozato, K., Yokomori, K. and Hurwitz, J. 2003. The alternative CTF18-DCC1-CTF8-replication factor C complex required for sister chromatid cohesion loads proliferating cell nuclear antigen onto DNA. Proc. Natl. Acad. Sci. USA 100: 10237-10242.
- 4. Merkle, C.J., Karnitz, L.M., Henry-Sánchez, J.T. and Chen, J. 2003. Cloning and characterization of hCTF18, hCTF8, and hDCC1. Human homologs of a Saccharomyces cerevisiae complex involved in sister chromatid cohesion establishment. J. Biol. Chem. 278: 30051-30056.
- 5. Kanellis, P., Agyei, R. and Durocher, D. 2003. Elg1 forms an alternative PCNA-interacting RFC complex required to maintain genome stability. Curr. Biol. 13: 1583-1595.
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#### CHROMOSOMAL LOCATION

Genetic locus: CHTF18 (human) mapping to 16p13.3; Chtf18 (mouse) mapping to 17 A3.3.

#### SOURCE

CTF18 (M-102) is a rabbit polyclonal antibody raised against amino acids 615-716 mapping within an internal region of CTF18 of mouse origin.

## PRODUCT

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

#### **APPLICATIONS**

CTF18 (M-102) is recommended for detection of CTF18 of mouse, rat and, to a lesser extent, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CTF18 siRNA (h): sc-93208, CTF18 siRNA (m): sc-142617, CTF18 shRNA Plasmid (h): sc-93208-SH, CTF18 shRNA Plasmid (m): sc-142617-SH, CTF18 shRNA (h) Lentiviral Particles: sc-93208-V and CTF18 shRNA (m) Lentiviral Particles: sc-142617-V.

#### **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<sup>™</sup> compatible goat antirabbit 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<sup>™</sup> 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.

# MONOS Satisfation Guaranteed

Try CTF18 (F-1): sc-374632 or CTF18 (B-7): sc-376074, our highly recommended monoclonal

alternatives to CTF18 (M-102).