

# HTF9C (T-17): sc-86496

## BACKGROUND

HTF9C (hpall tiny fragments locus 9c protein) is also known as TRMT2A (tRNA (uracil-5-)-methyltransferase homolog A) and is a 625 amino acid protein that is expressed as 2 isoforms. In mice, HTF9C is transcribed by a bidirectional promoter along with Ran BP-1 and the transcription of both genes is regulated during the cell cycle. During the S phase, the genes of HTF9C and Ran BP-1 are quickly transcribed into mRNA which is produced the most during this phase and mRNA production decreases during mitosis. The bidirectional promoter is down-regulated in growth-arrested cells and is activated during the G<sub>1</sub>/S transition. This co-regulation of the HTF9C and Ran BP-1 genes is an evolutionarily conserved trait present in many species that possess two proteins that may have related functions. The genes of both HTF9C and Ran BP-1 are expressed in human cells and are highly conserved among species. The human HTF9C gene is thought to be associated with a deficit in sustained attention observed among patients with schizophrenia.

## REFERENCES

- Bressan, A., Somma, M.P., Lewis, J., Santolamazza, C., Copeland, N.G., Gilbert, D.J., Jenkins, N.A. and Lavia, P. 1991. Characterization of the opposite-strand genes from the mouse bidirectionally transcribed HTF9 locus. *Gene* 103: 201-209.
- Guarguaglini, G., Battistoni, A., Pittoggi, C., Di Matteo, G., Di Fiore, B. and Lavia, P. 1997. Expression of the murine RanBP1 and HTF9C genes is regulated from a shared bidirectional promoter during cell cycle progression. *Biochem. J.* 325: 277-286.
- Puech, A., Saint-Jore, B., Funke, B., Gilbert, D.J., Sirotkin, H., Copeland, N.G., Jenkins, N.A., Kucherlapati, R., Morrow, B. and Skoultschi, A.I. 1997. Comparative mapping of the human 22q11 chromosomal region and the orthologous region in mice reveals complex changes in gene organization. *Proc. Natl. Acad. Sci. USA* 94: 14608-14613.

## CHROMOSOMAL LOCATION

Genetic locus: TRMT2A (human) mapping to 22q11.21; Trmt2a (mouse) mapping to 16 A3.

## SOURCE

HTF9C (T-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HTF9C 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.

Blocking peptide available for competition studies, sc-86496 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

HTF9C (T-17) is recommended for detection of HTF9C 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

HTF9C (T-17) is also recommended for detection of HTF9C in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HTF9C siRNA (h): sc-75312, HTF9C siRNA (m): sc-146111, HTF9C shRNA Plasmid (h): sc-75312-SH, HTF9C shRNA Plasmid (m): sc-146111-SH, HTF9C shRNA (h) Lentiviral Particles: sc-75312-V and HTF9C shRNA (m) Lentiviral Particles: sc-146111-V.

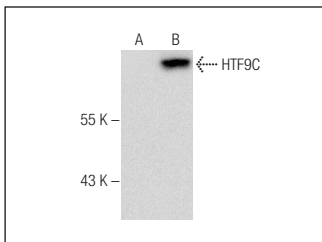
Molecular Weight of HTF9C: 75 kDa.

Positive Controls: HTF9C (m2): 293T Lysate: sc-120921, COLO 320DM cell lysate: sc-2226 or mouse brain extract: sc-2253.

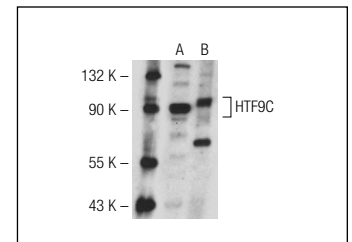
## RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: 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.

## DATA



HTF9C (T-17): sc-86496. Western blot analysis of HTF9C expression in non-transfected: sc-117752 (A) and mouse HTF9C transfected: sc-120921 (B) 293T whole cell lysates.



HTF9C (T-17): sc-86496. Western blot analysis of HTF9C expression in COLO 320DM whole cell lysate (A) and mouse brain tissue extract (B).

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.