

HTF9C (N-17): sc-86494

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 G₁/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 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus 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-86494 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 (N-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 (N-17) is also recommended for detection of HTF9C in additional species, including equine and canine.

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.

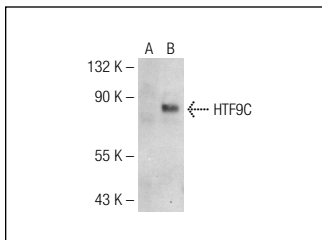
Molecular Weight of HTF9C: 75 kDa.

Positive Controls: HTF9C (h): 293T Lysate: sc-111679 or HTF9C (m2): 293T Lysate: sc-120921.

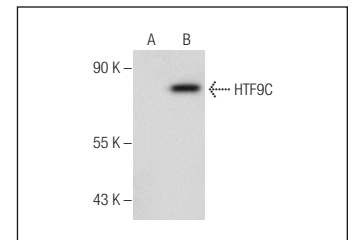
RECOMMENDED SECONDARY REAGENTS

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 (N-17): sc-86494. Western blot analysis of HTF9C expression in non-transfected: sc-117752 (A) and human HTF9C transfected: sc-111679 (B) 293T whole cell lysates.



HTF9C (N-17): sc-86494. Western blot analysis of HTF9C expression in non-transfected: sc-117752 (A) and mouse HTF9C transfected: sc-120921 (B) 293T whole cell lysates.

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.