

# UTP14C (P-20): sc-85207

## BACKGROUND

UTP14C (UTP14, U3 small nucleolar ribonucleoprotein), also known as UTP14B, is a 766 amino acid protein that localizes to the nucleolus and belongs to the UTP14 family. Expressed in testicular tissue, UTP14C functions as an essential component of spermatogenesis and is specifically required for ribosome biogenesis and protein synthesis during male meiosis. UTP14A, a related protein, may also be required for ribosome biogenesis, but not necessarily in a male-specific manner. The gene encoding UTP14C maps to human chromosome 13q14.3, which houses over 400 genes, such as BRCA2 and RB1, and comprises nearly 4% of the human genome. As with most chromosomes, polysomy of part or all of chromosome 13q14.3 is deleterious to development and decreases the odds of survival. Trisomy 13, also known as Patau syndrome, is deadly and the few who survive past one year suffer from permanent neurologic defects, difficulty eating and vulnerability to serious respiratory infections.

## REFERENCES

- Bradley, J., Baltus, A., Skaletsky, H., Royce-Tolland, M., Dewar, K. and Page, D.C. 2004. An X-to-autosome retrogene is required for spermatogenesis in mice. *Nat. Genet.* 36: 872-876.
- Rohozinski, J. and Bishop, C.E. 2004. The mouse juvenile spermatogonial depletion (jsd) phenotype is due to a mutation in the X-derived retrogene, mUtp14b. *Proc. Natl. Acad. Sci. USA* 101: 11695-11700.
- Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 608969. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Rohozinski, J., Lamb, D.J. and Bishop, C.E. 2006. UTP14C is a recently acquired retrogene associated with spermatogenesis and fertility in man. *Biol. Reprod.* 74: 644-651.

## CHROMOSOMAL LOCATION

Genetic locus: UTP14C (human) mapping to 13q14.3, UTP14A (human) mapping to Xq26.1.

## SOURCE

UTP14C (P-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of UTP14C of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-85207 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

UTP14C (P-20) is recommended for detection of UTP14C and UTP14A 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)], 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).

UTP14C (P-20) is also recommended for detection of UTP14C and UTP14A in additional species, including equine, canine, bovine and porcine.

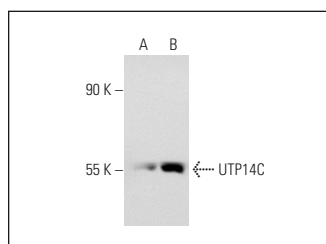
Molecular Weight of UTP14C: 87 kDa.

Positive Controls: UTP14C (h2): 293T Lysate: sc-178113.

## 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). 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™ Mounting Medium: sc-24941.

## DATA



UTP14C (P-20): sc-85207. Western blot analysis of UTP14C expression in non-transfected: sc-117752 (A) and human UTP14C transfected: sc-178113 (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](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **UTP14C (H-1): sc-365603**, our highly recommended monoclonal alternative to UTP14C (P-20).