

# ZNF76 (H-100): sc-98285



The Power to Question

## BACKGROUND

ZNF76, also known as ZNF523 or Zfp523, is a transcriptional repressor expressed in the testis. It is the human homolog of the *Xenopus* Staf protein (selenocysteine tRNA gene transcription-activating factor) known to regulate the genes encoding small nuclear RNA and selenocysteine tRNA. ZNF76 localizes to the nucleus and exerts an inhibitory function on p53-mediated transactivation. ZNF76 specifically targets TFIIID (TATA-binding protein). The interaction with TFIIID occurs through both its N- and C-termini. The transcriptional repression activity of ZNF76 is predominantly regulated by lysine modifications, acetylation and sumoylation. ZNF76 is sumoylated by PIAS 1 and is acetylated by p300. Acetylation leads to the loss of sumoylation and a weakened TFIIID interaction. ZNF76 can be deacetylated by HDAC1. In addition to lysine modifications, ZNF76 activity is also controlled by splice variants. Two isoforms exist due to alternative splicing. These isoforms vary in their ability to interact with TFIIID.

## REFERENCES

1. Ragoussis, J., et al. 1992. A testis-expressed Zn finger gene (ZNF76) in human 6p21.3 centromeric to the MHC is closely linked to the human homolog of the T-complex gene TCP-11. *Genomics* 14: 673-679.
2. Schuster, C., et al. 1995. Staf, a novel zinc finger protein that activates the RNA polymerase III promoter of the selenocysteine tRNA gene. *EMBO J.* 14: 3777-3787.
3. Myslinski, E., et al. 1998. ZNF76 and ZNF143 are two human homologs of the transcriptional activator Staf. *J. Biol. Chem.* 273: 21998-22006.
4. Tripodis, N., et al. 2000. Construction of a high-resolution 2.5-Mb transcript map of the human 6p21.2-6p21.3 region immediately centromeric of the major histocompatibility complex. *Genome Res.* 10: 454-472.
5. Kubota, H., et al. 2000. Transcriptional regulation of the mouse cytosolic chaperonin subunit gene Ccta/T-complex polypeptide 1 by selenocysteine tRNA gene transcription activating factor family zinc finger proteins. *J. Biol. Chem.* 275: 28641-28648.
6. Saur, D., et al. 2002. Complex regulation of human neuronal nitric-oxide synthase exon 1c gene transcription. Essential role of Sp and ZNF family members of transcription factors. *J. Biol. Chem.* 277: 25798-25814.

## CHROMOSOMAL LOCATION

Genetic locus: ZNF76 (human) mapping to 6p21.31.

## SOURCE

ZNF76 (H-100) is a rabbit polyclonal antibody raised against amino acids 364-463 mapping within an internal region of ZNF76 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-98285 X, 200 µg/0.1 ml.

## APPLICATIONS

ZNF76 (H-100) is recommended for detection of ZNF76 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).

ZNF76 (H-100) is also recommended for detection of ZNF76 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for ZNF76 siRNA (h): sc-77005, ZNF76 shRNA Plasmid (h): sc-77005-SH and ZNF76 shRNA (h) Lentiviral Particles: sc-77005-V.

ZNF76 (H-100) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

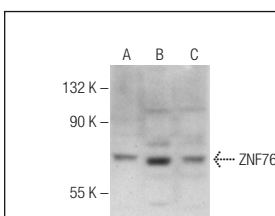
Molecular Weight of ZNF76: 62 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, MEG-01 cell lysate: sc-2283 or Hep G2 cell lysate: sc-2227.

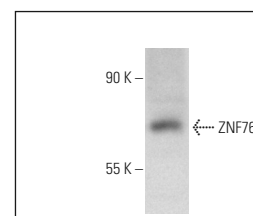
## RECOMMENDED SECONDARY REAGENTS

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



ZNF76 (H-100): sc-98285. Western blot analysis of ZNF76 expression in HS 181.Tes (A), K-562 (B) and MEG-01 (C) whole cell lysates.



ZNF76 (H-100): sc-98285. Western blot analysis of ZNF76 expression in Hep G2 whole cell lysate.

## 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.