

ZNF76 (A-11): sc-374645



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 TFIID (TATA-binding protein). The interaction with TFIID 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 TFIID 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 TFIID.

REFERENCES

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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.
7. Zheng, G., et al. 2004. ZNF76, a novel transcriptional repressor targeting TATA-binding protein, is modulated by sumoylation. *J. Biol. Chem.* 279: 42410-42421.

CHROMOSOMAL LOCATION

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

SOURCE

ZNF76 (A-11) is a mouse monoclonal antibody raised against amino acids 364-463 mapping within an internal region of ZNF76 of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain 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-374645 X, 200 µg/0.1 ml.

APPLICATIONS

ZNF76 (A-11) is recommended for detection of ZNF76 of human origin by Western Blotting (starting dilution 1:100, 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 ZNF76 siRNA (h): sc-77005, ZNF76 shRNA Plasmid (h): sc-77005-SH and ZNF76 shRNA (h) Lentiviral Particles: sc-77005-V.

ZNF76 (A-11) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

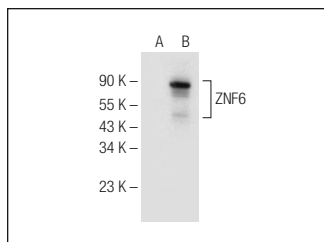
Molecular Weight of ZNF76: 62 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or ZNF76 (h): 293 Lysate: sc-110556.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ZNF76 (A-11): sc-374645. Western blot analysis of ZNF76 expression in non-transfected: sc-110760 (A) and human ZNF76 transfected: sc-110556 (B) 293 whole cell lysates.

RESEARCH USE

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