

ZNF174 (G-13): sc-109168

BACKGROUND

ZNF174, also known as ZSCAN8 or AW-1, is a transcriptional repressor that belongs to the Krüppel C₂H₂-type zinc-finger protein family. It is expressed in a number of different tissues, including small intestine, prostate, colon, spleen, pancreas, skeletal muscle, brain, heart, kidney and thymus, but it is most predominantly found in adult ovary and testis. ZNF174 specifically acts to repress the promoter activities of PDGF-B and TGFβ1. ZNF174 localizes to the nucleus and contains three C₂H₂-type zinc fingers at the C-terminus and one SCAN domain near the N-terminus. SCAN domains are found in a number of zinc-finger proteins and are characterized by a conserved region of 84 residues. The SCAN domain seemingly regulates the association of proteins containing SCAN domains into noncovalent complexes and may also function as an underlying mechanism in selective oligomerization of these proteins.

REFERENCES

- Williams, A.J., Khachigian, L.M., Shows, T. and Collins, T. 1995. Isolation and characterization of a novel zinc-finger protein with transcription repressor activity. *J. Biol. Chem.* 270: 22143-22152.
- Williams, A.J., Blacklow, S.C. and Collins, T. 2000. The zinc finger-associated SCAN box is a conserved oligomerization domain. *Mol. Cell Biol.* 19: 8526-8535.
- Schumacher, C., Wang, H., Honer, C., Ding, W., Koehn, J., Lawrence, Q., Coulis, C.M., Wang, L.L., Ballinger, D., Bowen, B.R. and Wagner, S. 2000. The SCAN domain mediates selective oligomerization. *J. Biol. Chem.* 275: 17173-17179.
- Stone, J.R., Maki, J.L., Blacklow, S.C. and Collins, T. 2002. The SCAN domain of ZNF174 is a dimer. *J. Biol. Chem.* 277: 5448-5452.
- Sander, T.L., Stringer, K.F., Maki, J.L., Szauter, P., Stone, J.R. and Collins, T. 2003. The SCAN domain defines a large family of zinc-finger transcription factors. *Gene* 310: 29-38.
- Ivanov, D., Stone, J.R., Maki, J.L., Collins, T. and Wagner, G. 2005. Mammalian SCAN domain dimer is a domain-swapped homolog of the HIV capsid C-terminal domain. *Mol. Cell* 17: 137-143.
- Edelstein, L.C. and Collins, T. 2005. The SCAN domain family of zinc-finger transcription factors. *Gene* 359: 1-17.

CHROMOSOMAL LOCATION

Genetic locus: ZNF174 (human) mapping to 16p13.3.

SOURCE

ZNF174 (G-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ZNF174 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-109168 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ZNF174 (G-13) is recommended for detection of ZNF174 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 ZNF174 siRNA (h): sc-93459, ZNF174 shRNA Plasmid (h): sc-93459-SH and ZNF174 shRNA (h) Lentiviral Particles: sc-93459-V.

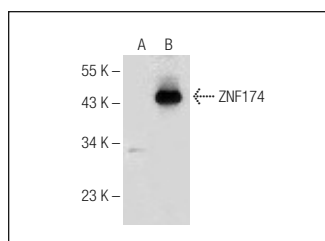
Molecular Weight of ZNF174: 46 kDa.

Positive Controls: human ZNF174 transfected HEK293T whole cell lysate.

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) 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



ZNF174 (G-13): sc-109168. Western blot analysis of ZNF174 expression in non-transfected (A) and human ZNF174 transfected (B) HEK293T whole cell lysates.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.