

# ZNF174 (C-10): sc-398744

## BACKGROUND

ZNF174, also known as ZSCAN8 or AW-1, is a transcriptional repressor that belongs to the Krüppel C<sub>2</sub>H<sub>2</sub>-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 C<sub>2</sub>H<sub>2</sub>-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

1. Williams, A.J., et al. 1995. Isolation and characterization of a novel zinc-finger protein with transcription repressor activity. *J. Biol. Chem.* 270: 22143-22152.
2. Williams, A.J., et al. 2000. The zinc finger-associated SCAN box is a conserved oligomerization domain. *Mol. Cell. Biol.* 19: 8526-8535.
3. Schumacher, C., et al. 2000. The SCAN domain mediates selective oligomerization. *J. Biol. Chem.* 275: 17173-17179.
4. Stone, J.R., et al. 2002. The SCAN domain of ZNF174 is a dimer. *J. Biol. Chem.* 277: 5448-5452.

## CHROMOSOMAL LOCATION

Genetic locus: ZNF174 (human) mapping to 16p13.3; Zfp174 (mouse) mapping to 16 A1.

## SOURCE

ZNF174 (C-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 233-259 within an internal region of ZNF174 of mouse origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ZNF174 (C-10) is available conjugated to agarose (sc-398744 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398744 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398744 PE), fluorescein (sc-398744 FITC), Alexa Fluor® 488 (sc-398744 AF488), Alexa Fluor® 546 (sc-398744 AF546), Alexa Fluor® 594 (sc-398744 AF594) or Alexa Fluor® 647 (sc-398744 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398744 AF680) or Alexa Fluor® 790 (sc-398744 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398744 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## APPLICATIONS

ZNF174 (C-10) is recommended for detection of ZNF174 of mouse, rat and 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 ZNF174 siRNA (h): sc-93459, ZNF174 siRNA (m): sc-155645, ZNF174 shRNA Plasmid (h): sc-93459-SH, ZNF174 shRNA Plasmid (m): sc-155645-SH, ZNF174 shRNA (h) Lentiviral Particles: sc-93459-V and ZNF174 shRNA (m) Lentiviral Particles: sc-155645-V.

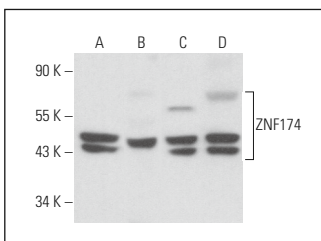
Molecular Weight of ZNF174: 46 kDa.

Positive Controls: Neuro-2A whole cell lysate: sc-364185, SW-13 cell lysate: sc-24778 or K-562 whole cell lysate: sc-2203.

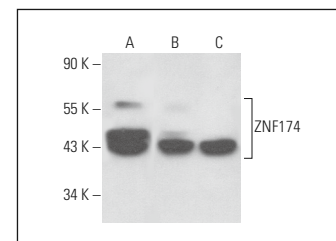
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BPHRP: sc-516102 or m-IgGκ BPHRP (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



ZNF174 (C-10): sc-398744. Western blot analysis of ZNF174 expression in F9 (A), SP2/O (B) and KNRK (C) whole cell lysates and rat testis tissue extract (D).



ZNF174 (C-10): sc-398744. Western blot analysis of ZNF174 expression in Neuro-2A (A), SW-13 (B) and K-562 (C) 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](http://www.scbt.com) for detailed protocols and support products.