

# ZNF274 (C-12): sc-132925

## BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. A member of the Krüppel C<sub>2</sub>H<sub>2</sub>-type zinc-finger protein family, ZNF274, also known as zinc finger protein with KRAB and SCAN domains 19, is a 653 amino acid protein containing 5 C<sub>2</sub>H<sub>2</sub>-type zinc fingers, 2 KRAB A domains and one SCAN box domain. Predominantly localized to the nucleolus, ZNF274 exhibits transcriptional repressing activity. There are four isoforms of ZNF274 that are produced as a result of alternative splicing events. Although total ZNF274 expression seems to be ubiquitous, the two main isoforms, ZNF274a and ZNF274b, differ slightly in tissue distribution with higher expression of ZNF274a in testis and higher expression of ZNF274b in spleen, ovary, skeletal muscle and thymus.

## REFERENCES

1. Bellefroid, E.J., et al. 1991. The evolutionarily conserved Krüppel-associated box domain defines a subfamily of eukaryotic multifingered proteins. *Proc. Natl. Acad. Sci. USA* 88: 3608-3612.
2. Constantinou-Deltas, C.D., et al. 1992. The identification and characterization of KRAB-domain-containing zinc finger proteins. *Genomics* 12: 581-589.
3. Pengue, G., et al. 1994. Repression of transcriptional activity at a distance by the evolutionarily conserved KRAB domain present in a subfamily of zinc finger proteins. *Nucleic Acids Res.* 22: 2908-2914.
4. Witzgall, R., et al. 1994. The Krüppel-associated box-A (KRAB-A) domain of zinc finger proteins mediates transcriptional repression. *Proc. Natl. Acad. Sci. USA* 91: 4514-4518.
5. Vissing, H., et al. 1995. Repression of transcriptional activity by heterologous KRAB domains present in zinc finger proteins. *FEBS Lett.* 369: 153-157.
6. Yano, K., et al. 2000. Identification and characterization of human ZNF274 cDNA, which encodes a novel krüppel-type zinc-finger protein having nucleolar targeting ability. *Genomics* 65: 75-80.
7. Edelstein, L.C., et al. 2005. The SCAN domain family of zinc finger transcription factors. *Gene* 359: 1-17.
8. Sripathy, S.P., et al. 2006. The KAP1 corepressor functions to coordinate the assembly of *de novo* HP1-demarcated microenvironments of heterochromatin required for KRAB zinc finger protein-mediated transcriptional repression. *Mol. Cell. Biol.* 26: 8623-8638.

## CHROMOSOMAL LOCATION

Genetic locus: ZNF274 (human) mapping to 19q13.43.

## SOURCE

ZNF274 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ZNF274 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 IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-132925 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ZNF274 (C-12) is recommended for detection of ZNF274 isoforms 1-4 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); non cross-reactive with other ZNF family members.

Suitable for use as control antibody for ZNF274 siRNA (h): sc-97328, ZNF274 shRNA Plasmid (h): sc-97328-SH and ZNF274 shRNA (h) Lentiviral Particles: sc-97328-V.

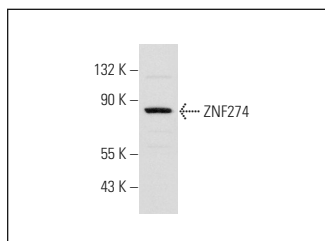
Molecular Weight of ZNF274: 74 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or RT-4 whole cell lysate: sc-364257.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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



ZNF274 (C-12): sc-132925. Western blot analysis of ZNF274 expression in RT-4 whole cell lysate.

## RESEARCH USE

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