SANTA CRUZ BIOTECHNOLOGY, INC.

ZNF274 (E-25): sc-102200

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

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_2H_2-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_2H_2-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 kruppel-type zinc-finger protein having nucleolar targeting ability. Genomics 65: 75-80.
7. Edelstein, L.C. and Collins, T. 2005. The SCAN domain family of zinc finger transcription factors. Gene 359: 1-17.

CHROMOSOMAL LOCATION

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

SOURCE

ZNF274 (E-25) is a purified rabbit polyclonal antibody raised against ZNF274 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

STORAGE

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

APPLICATIONS

ZNF274 (E-25) is recommended for detection of ZNF274 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), immunohistochemistry (including paraffin-embedded sections) (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 ZNF274 siRNA (h): sc-97328, ZNF274 shRNA Plasmid (h): sc-97328-SH and ZNF274 shRNA (h) Lentiviral Particles: sc-97328-V.

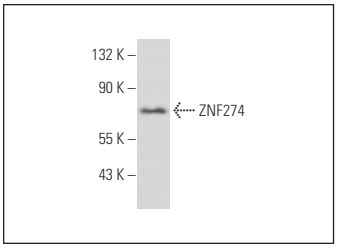
Molecular Weight of ZNF274: 74 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204. or K-562 nuclear extract: sc-2130.

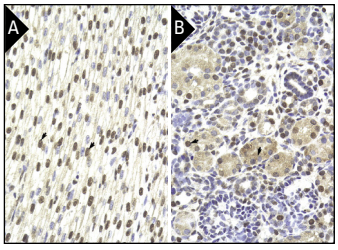
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



ZNF274 (E-25): sc-102200. Western blot analysis of ZNF274 expression in K-562 nuclear extract.



ZNF274 (E-25): sc-102200. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart tissue (**A**) and human kidney tissue (**B**) showing nuclear and cytoplasmic staining

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.