SANTA CRUZ BIOTECHNOLOGY, INC.

ZNF474 (C-8): sc-514917

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. As a member of the Krüppel C_2H_2-type zinc-finger protein family, ZNF474 (zinc finger protein 474), also designated testis-specific zinc finger protein, is a 364 amino acid protein containing one C_2H_2-type zinc fingers. The gene encoding ZNF474 localizes to chromosome 5q23.2 which contains 181 million base pairs and comprises nearly 6% of the human genome. Chromosome 5 is associated with Cockayne syndrome through the ERCC8 gene and familial adenomatous polyposis through the adenomatous polyposis coli (APC) tumor suppressor gene. Treacher Collins syndrome is also chromosome 5-associated and is caused by insertions or deletions within the TCOF1 gene. Deletion of the p arm of chromosome 5 leads to Cri du chat syndrome, while deletion of the q arm or of chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

REFERENCES

1. Gerhard, et al. 2004. The status, quality, and expansion of the NIH full-length cDNA project: the Mammalian Gene Collection (MGC). Genome Res. 14: 2121-2127.
2. Ota, T., et al. 2004. Complete sequencing and characterization of 21,243 full-length human cDNAs. Nat. Genet. 36: 40-45.
3. Rauch, A., et al. 2007. Chromosome 5q subtelomeric deletion syndrome. Am. J. Med. Genet. C Semin. Med. Genet. 145C: 372-376.
4. Villa, N., et al. 2007. Fetal trisomy 5 mosaicism: case report and literature review. Am. J. Med. Genet. A 143A: 2343-2346.
5. Shadduck, R.K., et al. 2007. Recent advances in myelodysplastic syndromes. Exp. Hematol. 35: 137-143.

CHROMOSOMAL LOCATION

Genetic locus: ZNF474 (human) mapping to 5q23.2; Zfp474 (mouse) mapping to 18 D1.

SOURCE

ZNF474 (C-8) is a mouse monoclonal antibody raised against amino acids 191-364 mapping at the C-terminus of ZNF474 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ZNF474 (C-8) is available conjugated to agarose (sc-514917 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514917 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514917 PE), fluorescein (sc-514917 FITC), Alexa Fluor® 488 (sc-514917 AF488), Alexa Fluor® 546 (sc-514917 AF546), Alexa Fluor® 594 (sc-514917 AF594) or Alexa Fluor® 647 (sc-514917 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514917 AF680) or Alexa Fluor® 790 (sc-514917 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ZNF474 (C-8) is recommended for detection of ZNF474 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 ZNF474 siRNA (h): sc-91949, ZNF474 siRNA (m): sc-155725, ZNF474 shRNA Plasmid (h): sc-91949-SH, ZNF474 shRNA Plasmid (m): sc-155725-SH, ZNF474 shRNA (h) Lentiviral Particles: sc-91949-V and ZNF474 shRNA (m) Lentiviral Particles: sc-155725-V.

Molecular Weight (predicted) of ZNF474: 40 kDa.

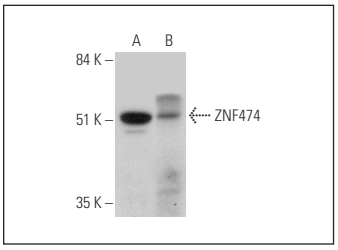
Molecular Weight (observed) of ZNF474: 50 kDa.

Positive Controls: NTERA-2 cl.D1 whole cell lysate: sc-364181, human testis extract: sc-363781 or JAR cell lysate: sc-2276.

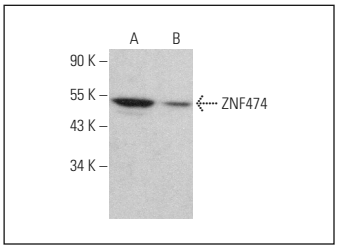
RECOMMENDED SUPPORT REAGENTS

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



ZNF474 (H-174): sc-514917. Western blot analysis of ZNF474 expression in NTERA-2 cl.D1 whole cell lysate (**A**) and human testis tissue extract (**B**).



ZNF474 (C-8): sc-514917. Western blot analysis of ZNF474 expression in NTERA-2 cl.D1 (**A**) and JAR (**B**) 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.