# ZNF2 (V-25): sc-134175



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. The majority of zinc-finger proteins contain a Krüppel-type DNA binding domain and a KRAB domain, which is thought to interact with KAP1, thereby recruiting histone modifying proteins. As a member of the Krüppel  $C_2H_2$ -type zinc-finger protein family, ZNF2 (zinc finger protein 2), also known as zinc finger protein 2.2 and zinc finger protein 661, is a 425 amino acid nuclear protein that contains one KRAB domain and 9  $C_2H_2$ -type zinc fingers. The gene encoding ZNF2 maps to human chromosome 2, which houses over 1,400 genes and comprises nearly 8% of the human genome. Harlequin icthyosis, a rare and morbid skin deformity, is associated with mutations in the chromosome 2-localized ABCA12 gene, while the lipid metabolic disorder sitosterolemia is associated with defects in the ABCG5 and ABCG8 genes, which also map to chromosome 2.

## **REFERENCES**

- Miller, J., McLachlan, A.D. and Klug, A. 1985. Repetitive zinc-binding domains in the protein transcription factor IIIA from *Xenopus* oocytes. EMBO J. 4: 1609-1614.
- Rosati, M., Marino, M., Franzè, A., Tramontano, A. and Grimaldi, G. 1991.
  Members of the zinc finger protein gene family sharing a conserved
  N-terminal module. Nucleic Acids Res. 19: 5661-5667.
- 3. Rocchi, M., Gentile, E., Rosati, M. and Grimaldi, G. 1999. The human KRAB/FPB containing zinc finger gene ZNF2 maps to chromosome 2q11.2. Cytogenet. Cell Genet. 86: 305-306.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 194500. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Rivieccio, V., Mannini, R., Concilio, L., D'Auria, S., Pedone, C. and Grimaldi, G. 2005. Expression, purification and partial characterization of the Krüppelassociated box (KRAB) from the human ZNF2 protein. Protein Pept. Lett. 12: 527-532.
- Mannini, R., Rivieccio, V., D'Auria, S., Tanfani, F., Ausili, A., Facchiano, A., Facchiano, A., Pedone, C. and Grimaldi, G. 2006. Structure/function of KRAB repression domains: structural properties of KRAB modules inferred from hydrodynamic, circular dichroism, and FTIR spectroscopic analyses. Proteins 62: 604-616.
- 7. Wienk, H., Lammers, I., Hotze, A., Wu, J., Wechselberger, R.W., Owens, R., Stammers, D.K., Stuart, D., Kaptein, R. and Folkers, G.E. 2009. The tandem zinc-finger region of human ZHX adopts a novel C<sub>2</sub>H<sub>2</sub> zinc finger structure with a C-terminal extension. Biochemistry 48: 4431-4439.

## **CHROMOSOMAL LOCATION**

Genetic locus: ZNF2 (human) mapping to 2q11.1.

#### **SOURCE**

ZNF2 (V-25) is a Protein A purified rabbit polyclonal antibody raised against synthetic ZNF2 peptide of human origin.

#### **PRODUCT**

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

## **APPLICATIONS**

ZNF2 (V-25) is recommended for detection of ZNF2 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ZNF2 siRNA (h): sc-94869, ZNF2 shRNA Plasmid (h): sc-94869-SH and ZNF2 shRNA (h) Lentiviral Particles: sc-94869-V.

Molecular Weight of ZNF2: 49 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

#### **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).

# SELECT PRODUCT CITATIONS

 Grabinski, N., Bartkowiak, K., Grupp, K., Brandt, B., Pantel, K. and Jücker, M. 2011. Distinct functional roles of Akt isoforms for proliferation, survival, migration and EGF-mediated signalling in lung cancer derived disseminated tumor cells. Cell. Signal. 23: 1952-1960.

#### **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.

**Santa Cruz Biotechnology, Inc.** 1.800.457.3801 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**