

# ZIK1 (P-14): sc-169879

## 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 are thought to interact with KAP1, thereby recruiting histone modifying proteins. ZIK1 (zinc finger protein interacting with K protein 1 homolog), also known as ZNF762, is a 487 amino acid nuclear protein belonging to the Krüppel C<sub>2</sub>H<sub>2</sub>-type zinc-finger protein family. Expressed at high levels in gastric glands, and at low levels in colon and small intestine, ZIK1 is silenced through promoter methylation in gastric glands with intestinal metaplasia. ZIK1 is considered a transcriptional repressor that interacts with hnRNP K. ZIK1 contains nine C<sub>2</sub>H<sub>2</sub>-type zinc fingers and a KRAB domain. Three isoforms of ZIK1 are produced by alternative splicing events.

## REFERENCES

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2. Denisenko, O.N., et al. 1996. Zik1, a transcriptional repressor that interacts with the heterogeneous nuclear ribonucleoprotein particle K protein. *J. Biol. Chem.* 271: 27701-27706.
3. Englbrecht, C.C., et al. 2004. Conservation, diversification and expansion of C<sub>2</sub>H<sub>2</sub> zinc finger proteins in the *Arabidopsis thaliana* genome. *BMC Genomics* 5: 39.
4. Nakamura, M., et al. 2004. A novel subfamily of zinc finger genes involved in embryonic development. *J. Cell. Biochem.* 93: 887-895.
5. Mihara, M., et al. 2006. Methylation of multiple genes in gastric glands with intestinal metaplasia: A disorder with polyclonal origins. *Am. J. Pathol.* 169: 1643-1651.
6. O'Geen, H., et al. 2007. Genome-wide analysis of KAP1 binding suggests autoregulation of KRAB-ZNFs. *PLoS Genet.* 3: e89.
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8. Oka, D., et al. 2009. The presence of aberrant DNA methylation in non-cancerous esophageal mucosae in association with smoking history: a target for risk diagnosis and prevention of esophageal cancers. *Cancer* 115: 3412-3426.
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## CHROMOSOMAL LOCATION

Genetic locus: Zik1 (mouse) mapping to 7 A1.

## SOURCE

ZIK1 (P-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ZIK1 of mouse origin.

## RESEARCH USE

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

## 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-169879 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-169879 X, 200 µg/0.1 ml.

## APPLICATIONS

ZIK1 (P-14) is recommended for detection of ZIK1 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 ZIK1 siRNA (m): sc-155613, ZIK1 shRNA Plasmid (m): sc-155613-SH and ZIK1 shRNA (m) Lentiviral Particles: sc-155613-V.

ZIK1 (P-14) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of ZIK1: 55 kDa.

## 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) 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.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.