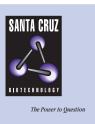
SANTA CRUZ BIOTECHNOLOGY, INC.

ZIK1 (U-22): sc-134167



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 krueppel-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 krueppel C₂H₂-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_2H_2 -type zinc fingers and a KRAB domain. Three isoforms of ZIK1 are produced by alternative splicing events.

REFERENCES

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- 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_2H_2 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.
- 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 noncancerous 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 (human) mapping to 19q13.43.

STORAGE

Store at 4° C, **D0 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.

SOURCE

ZIK1 (U-22) is a Protein A purified rabbit polyclonal antibody raised against synthetic ZIK1 peptide of human origin.

PRODUCT

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

APPLICATIONS

ZIK1 (U-22) is recommended for detection of ZIK1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 ZIK1 siRNA (h): sc-97601, ZIK1 shRNA Plasmid (h): sc-97601-SH and ZIK1 shRNA (h) Lentiviral Particles: sc-97601-V.

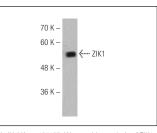
Molecular Weight of ZIK1: 55 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

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).

DATA



ZIK1 (U-22): sc-134167. Western blot analysis of ZIK1 expression in Jurkat whole cell lysate.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.