

RINZF (P-13): sc-87402

BACKGROUND

RINZF, also known as ZBTB10 (zinc finger and BTB domain containing protein 10), is a 847 amino acid protein that contains one BTB/POZ domain and 2 C₂H₂-type zinc fingers. Localized to the nucleus, RINZF is believed to play a role in transcriptional regulation. Specifically, RINZF is capable of binding to the CACC element of the Gastrin promoter. In this regard, RINZF competes with Sp1 for CACC binding and interferes with Sp1 transactivation, thereby regulating Gastrin gene expression. The rat RINZF protein shares 98% homology with the human RINZF protein, suggesting that RINZF is a conserved protein. Due to alternative splicing events, two RINZF isoforms exist. In addition, RINZF may be phosphorylated by ATR or ATM upon DNA damage.

REFERENCES

1. Wang, T.C. and Brand, S.J. 1990. Islet cell-specific regulatory domain in the gastrin promoter contains adjacent positive and negative DNA elements. *J. Biol. Chem.* 265: 8908-8914.
2. Tillotson, L.G., Wang, T.C. and Brand, S.J. 1994. Activation of gastrin transcription in pancreatic insulinoma cells by a CACC promoter element and a 70 kDa sequence-specific DNA-binding protein. *J. Biol. Chem.* 269: 2234-2240.
3. Chung, D.C., Brand, S.J. and Tillotson, L.G. 1995. Mutually exclusive interactions between factors binding to adjacent Sp1 and AT-rich elements regulate gastrin gene transcription in insulinoma cells. *J. Biol. Chem.* 270: 8829-8836.
4. Tillotson, L.G. 1999. RINZF, a novel zinc finger gene, encodes proteins that bind to the CACC element of the gastrin promoter. *J. Biol. Chem.* 274: 8123-8128.
5. Ishizuka, M., Ohshima, H., Tamura, N., Nakada, T., Inoue, A., Hirose, S. and Hagiwara, H. 2003. Molecular cloning and characteristics of a novel zinc finger protein and its splice variant whose transcripts are expressed during spermatogenesis. *Biochem. Biophys. Res. Commun.* 301: 1079-1085.
6. Samuel, S. and Bernstein, L.R. 2004. Adhesion, migration, transcriptional, interferon-inducible, and other signaling molecules newly implicated in cancer susceptibility and resistance of JB6 cells by cDNA microarray analyses. *Mol. Carcinog.* 39: 34-60.

CHROMOSOMAL LOCATION

Genetic locus: ZBTB10 (human) mapping to 8q21.13; Zbtb10 (mouse) mapping to 3 A1.

SOURCE

RINZF (P-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of RINZF of human origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-87402 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-87402 X, 100 µg/0.1 ml.

APPLICATIONS

RINZF (P-13) is recommended for detection of RINZF of mouse, rat and human 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).

RINZF (P-13) is also recommended for detection of RINZF in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for RINZF siRNA (h): sc-77446, RINZF siRNA (m): sc-152971, RINZF shRNA Plasmid (h): sc-77446-SH, RINZF shRNA Plasmid (m): sc-152971-SH, RINZF shRNA (h) Lentiviral Particles: sc-77446-V and RINZF shRNA (m) Lentiviral Particles: sc-152971-V.

RINZF (P-13) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of RINZF: 92 kDa.

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) 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.

SELECT PRODUCT CITATIONS

1. Hou, P., Liu, D. and Xing, M. 2011. Genome-wide alterations in gene methylation by the BRAF V600E mutation in papillary thyroid cancer cells. *Endocr. Relat. Cancer* 18: 687-697.

PROTOCOLS

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