

# ZRANB2 (T-14): sc-131835

## 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. ZRANB2 (zinc finger Ran-binding domain-containing protein 2), also known as ZNF265 (zinc finger protein 265), ZIS, ZIS1 or ZIS2, is a 330 amino acid protein that belongs to the ZRANB2 family. Localized to the nucleus, ZRANB2 functions as a splicing factor that is responsible for alternatively splicing Tra-2 $\beta$  (transformer-2  $\beta$ ) transcripts and is thought to interfere with constitutive 5'-splice selection. ZRANB2 contains two RanBP2-type zinc fingers through which it conveys its RNA-binding activity. Two isoforms, designated ZIS-1 and ZIS-2, are expressed due to alternative splicing events. Upon DNA damage, ZIS-2 may be phosphorylated by ATM or ATR.

## REFERENCES

1. Nakano, M., et al. 1998. Identification, characterization and mapping of the human ZIS (zinc-finger, splicing) gene. *Gene* 225: 59-65.
2. Adams, D.J., et al. 2000. Chromosome localization and characterization of the mouse and human zinc finger protein 265 gene. *Cytogenet. Cell Genet.* 88: 68-73.
3. Adams, D.J., et al. 2001. ZNF265-a novel spliceosomal protein able to induce alternative splicing. *J. Cell Biol.* 154: 25-32.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604347. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Plambeck, C.A., et al. 2003. The structure of the zinc finger domain from human splicing factor ZNF265 fold. *J. Biol. Chem.* 278: 22805-22811.
6. Mangs, A.H., et al. 2006. XE7: a novel splicing factor that interacts with ASF/SF2 and ZNF265. *Nucleic Acids Res.* 34: 4976-4986.

## CHROMOSOMAL LOCATION

Genetic locus: ZRANB2 (human) mapping to 1p31.1; Zranb2 (mouse) mapping to 3 H4.

## SOURCE

ZRANB2 (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ZRANB2 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-131835 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## 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.

## APPLICATIONS

ZRANB2 (T-14) is recommended for detection of ZRANB2 isoforms 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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 ZRANB2 siRNA (h): sc-78863, ZRANB2 siRNA (m): sc-155672, ZRANB2 shRNA Plasmid (h): sc-78863-SH, ZRANB2 shRNA Plasmid (m): sc-155672-SH, ZRANB2 shRNA (h) Lentiviral Particles: sc-78863-V and ZRANB2 shRNA (m) Lentiviral Particles: sc-155672-V.

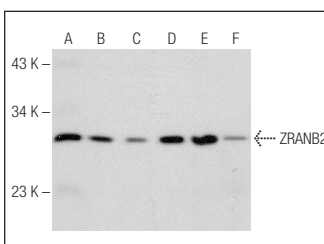
Molecular Weight of ZRANB2: 55 kDa.

Positive Controls: PC-12 cell lysate: sc-2250, NIH/3T3 whole cell lysate: sc-2210 or HT-1080 whole cell lysate: sc-364183.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



ZRANB2 (T-14): sc-131835. Western blot analysis of ZRANB2 expression in PC-12 (A), NIH/3T3 (B), HT-1080 (C), K-562 (D), Ramos (E) and HEK293 (F) whole cell lysates.

## PROTOCOLS

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