

# ZRANB3 (P-12): sc-137959

## BACKGROUND

Zinc finger Ran-binding domain-containing protein 3 (ZRANB3) is a 1079 amino acid gene product that belongs to the Snf2/Rad54 helicase family. Other family members are known to be involved in DNA repair and mitotic recombination. This family of proteins often plays an active role in recombination processes in cooperation with other members of the Rad52 epistasis group. The ZRANB3 product contains one helicase ATP-binding domain, one helicase C-terminal domain and one RanBP2-type zinc finger. RanBP2-type zinc fingers mediate the helicase binding to RNA. Similar to other Ran-binding zinc finger proteins, ZRANB3 likely acts as a splice factor for alternative splicing events of pre-mRNA transcripts. ZRANB proteins may also interfere with constitutive 5'-splice site selection.

## REFERENCES

1. Tanaka, K., et al. 2000. A novel human Rad54 homologue, Rad54B, associates with Rad51. *J. Biol. Chem.* 275: 26316-26321.
2. Heese, K., et al. 2004. Characterizing the new transcription regulator protein p60TRP. *J. Cell. Biochem.* 91: 1030-1042.
3. Chang, P.A., et al. 2007. Molecular cloning and expression analysis of a RanBP2 zinc finger protein gene in upland cotton (*Gossypium hirsutum L.*). *Colloids Surf. B Biointerfaces.* 55: 153-158.
4. Mangs, A.H. and Morris, B.J. 2008. ZRANB2: structural and functional insights into a novel splicing protein. *Int. J. Biochem. Cell Biol.* 40: 2353-2357.
5. Horio, Y., et al. 2009. Relationship of mRNA expressions of RanBP2 and topoisomerase II isoforms to cytotoxicity of amrubicin in human lung cancer cell lines. *Cancer Chemother. Pharmacol.* E-published.
6. Loughlin, F.E., et al. 2009. The zinc fingers of the SR-like protein ZRANB2 are single-stranded RNA-binding domains that recognize 5' splice site-like sequences. *Proc. Natl. Acad. Sci. USA* 106: 5581-5586.

## CHROMOSOMAL LOCATION

Genetic locus: ZRANB3 (human) mapping to 2q21.3; Zranb3 (mouse) mapping to 1 E4.

## SOURCE

ZRANB3 (P-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ZRANB3 of human origin.

## 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-137959 P, (100 µg 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.

## APPLICATIONS

ZRANB3 (P-12) is recommended for detection of ZRANB3 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 µg per 100-500 µg 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).

ZRANB3 (P-12) is also recommended for detection of ZRANB3 isoforms 1 and 2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ZRANB3 siRNA (h): sc-94423, ZRANB3 siRNA (m): sc-155829, ZRANB3 shRNA Plasmid (h): sc-94423-SH, ZRANB3 shRNA Plasmid (m): sc-155829-SH, ZRANB3 shRNA (h) Lentiviral Particles: sc-94423-V and ZRANB3 shRNA (m) Lentiviral Particles: sc-155829-V.

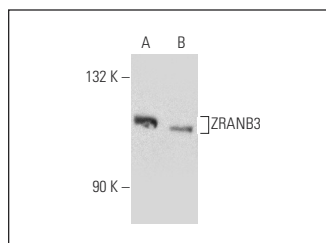
Molecular Weight of ZRANB3: 123 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, MCF7 whole cell lysate: sc-2206 or HeLa whole cell lysate: sc-2200.

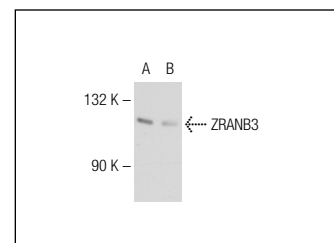
## RECOMMENDED SECONDARY REAGENTS

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



ZRANB3 (P-12): sc-137959. Western blot analysis of ZRANB3 expression in 293 (A) and MCF7 (B) whole cell lysates.



ZRANB3 (P-12): sc-137959. Western blot analysis of ZRANB3 expression in K-562 (A) and HeLa (B) whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

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