

# ZSCAN22 (S-18): sc-244832

## 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 is thought to interact with KAP1, thereby recruiting histone modifying proteins. ZSCAN22 (zinc finger and SCAN domain-containing protein 22), also known as HKR2 or ZNF50 (zinc finger protein 50), is a 491 amino acid nuclear protein. Belonging to the Krüppel C<sub>2</sub>H<sub>2</sub>-type zinc-finger protein family, ZSCAN22 contains eight C<sub>2</sub>H<sub>2</sub>-type zinc fingers and one SCAN box domain. ZSCAN22 may be involved in transcriptional regulation, and becomes phosphorylated upon DNA damage. The gene encoding ZSCAN22 maps to human chromosome 19q13.43.

## REFERENCES

1. Payre, F. and Vincent, A. 1988. Finger proteins and DNA-specific recognition: distinct patterns of conserved amino acids suggest different evolutionary modes. *FEBS Lett.* 234: 245-250.
2. Ruppert, J.M., et al. 1988. The GLI-Krüppel family of human genes. *Mol. Cell. Biol.* 8: 3104-3113.
3. Thiesen, H.J. 1990. Multiple genes encoding zinc finger domains are expressed in human T cells. *New Biol.* 2: 363-374.
4. Lichter, P., et al. 1992. Clustering of C<sub>2</sub>H<sub>2</sub> zinc finger motif sequences within telomeric and fragile site regions of human chromosomes. *Genomics* 13: 999-1007.
5. Rosenfeld, R. and Margalit, H. 1993. Zinc fingers: conserved properties that can distinguish between spurious and actual DNA-binding motifs. *J. Biomol. Struct. Dyn.* 11: 557-570.
6. Abrink, M., et al. 1995. Isolation of cDNA clones for 42 different Krüppel-related zinc finger proteins expressed in the human monoblast cell line U-937. *DNA Cell Biol.* 14: 125-136.

## CHROMOSOMAL LOCATION

Genetic locus: ZSCAN22 (human) mapping to 19q13.43; Zscan22 (mouse) mapping to 7 A1.

## SOURCE

ZSCAN22 (S-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ZSCAN22 of mouse 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-244832 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

ZSCAN22 (S-18) is recommended for detection of ZSCAN22 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); non cross-reactive with other ZSCAN family members.

Suitable for use as control antibody for ZSCAN22 siRNA (h): sc-97623, ZSCAN22 siRNA (m): sc-155835, ZSCAN22 shRNA Plasmid (h): sc-97623-SH, ZSCAN22 shRNA Plasmid (m): sc-155835-SH, ZSCAN22 shRNA (h) Lentiviral Particles: sc-97623-V and ZSCAN22 shRNA (m) Lentiviral Particles: sc-155835-V.

Molecular Weight (predicted) of ZSCAN22: 55 kDa.

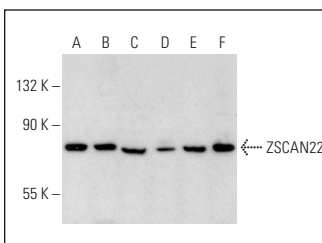
Molecular Weight (observed) of ZSCAN22: 73 kDa.

Positive Controls: c4 whole cell lysate: sc-364186, A549 cell lysate: sc-2413 or NIH/3T3 whole cell lysate: sc-2210.

## 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



ZSCAN22 (S-18): sc-244832. Western blot analysis of ZSCAN22 expression in U-251-MG (A), A549 (B), c4 (C), NIH/3T3 (D), U-87 MG (E) and HeLa (F) 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.