

ZSCAN22 (D-4): sc-514712

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 C₂H₂-type zinc-finger protein family, ZSCAN22 contains eight C₂H₂-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 C₂H₂ zinc finger motif sequences within telomeric and fragile site regions of human chromosomes. *Genomics* 13: 999-1007.

CHROMOSOMAL LOCATION

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

SOURCE

ZSCAN22 (D-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 35-58 near the N-terminus of ZSCAN22 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ZSCAN22 (D-4) is available conjugated to agarose (sc-514712 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514712 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514712 PE), fluorescein (sc-514712 FITC), Alexa Fluor® 488 (sc-514712 AF488), Alexa Fluor® 546 (sc-514712 AF546), Alexa Fluor® 594 (sc-514712 AF594) or Alexa Fluor® 647 (sc-514712 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514712 AF680) or Alexa Fluor® 790 (sc-514712 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514712 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

ZSCAN22 (D-4) is recommended for detection of ZSCAN22 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

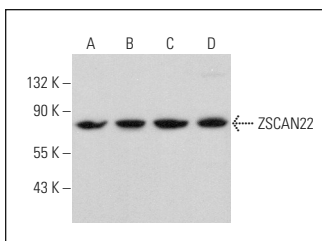
Molecular Weight (observed) of ZSCAN22: 73 kDa.

Positive Controls: U-87 MG cell lysate: sc-2411, EOC 20 whole cell lysate: sc-364187 or NIH/3T3 whole cell lysate: sc-2210.

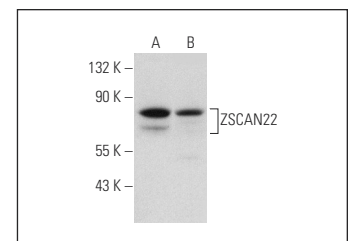
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ZSCAN22 (D-4): sc-514712. Western blot analysis of ZSCAN22 expression in NIH/3T3 (A), EOC 20 (B), 3611-RF (C) and C6 (D) whole cell lysates.



ZSCAN22 (B-9): sc-514712. Western blot analysis of ZSCAN22 expression in U-87 MG (A) and NIH/3T3 (B) whole cell lysates.

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.