

ZNF649 (E-14): sc-132593

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. Zinc finger protein 649 (ZNF649) is a 505 amino acid member of the Krüppel C₂H₂-type zinc finger protein family. Localized to the nucleus, ZNF649 is highly expressed in heart, brain and skeletal muscle with lower levels of expression in lung, liver, kidney and pancreas. ZNF649 contains ten C₂H₂-type zinc fingers and one KRAB domain through which it is thought to be involved in DNA-binding and transcriptional repression of mitogen-activated protein kinase signaling pathways.

REFERENCES

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- Thiesen, H.J. 1990. Multiple genes encoding zinc finger domains are expressed in human T cells. *New Biol.* 2: 363-374.
- 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.
- 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.
- Walter, L. and Günther, E. 2000. Physical mapping and evolution of the centromeric class I gene-containing region of the rat MHC. *Immunogenetics* 51: 829-837.
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- Yang, H., et al. 2005. ZNF649, a novel Krüppel type zinc-finger protein, functions as a transcriptional suppressor. *Biochem. Biophys. Res. Commun.* 333: 206-215.

CHROMOSOMAL LOCATION

Genetic locus: ZNF649 (human) mapping to 19q13.33.

SOURCE

ZNF649 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ZNF649 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.

PROTOCOLS

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

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-132593 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ZNF649 (E-14) is recommended for detection of ZNF649 of 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 ZNF family members.

Suitable for use as control antibody for ZNF649 siRNA (h): sc-97885, ZNF649 shRNA Plasmid (h): sc-97885-SH and ZNF649 shRNA (h) Lentiviral Particles: sc-97885-V.

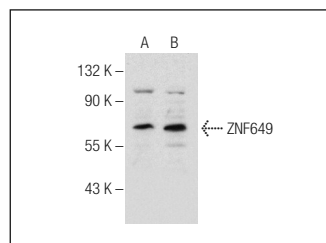
Molecular Weight of ZNF649: 58 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or Jurkat nuclear extract: sc-2132.

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



ZNF649 (E-14): sc-132593. Western blot analysis of ZNF649 expression in Jurkat whole cell lysate (A) and Jurkat nuclear extract (B).

RESEARCH USE

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