# OTK18 (D-14): sc-131827



The Power to Question

## **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 175 (ZNF175), also known as OTK18, is a 711 amino acid member of the Krüppel  $C_2H_2$ -type zinc-finger protein family. Localized both to the nucleus and cytosol, ZNF175 contains  $15\ C_2H_2$ -type zinc fingers and one KRAB domain. Induced by HIV-1 infection, ZNF175 is thought to be an HIV-1-inducible transcriptional suppressor.

# **REFERENCES**

- 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.
- Berg, J.M. 1988. Proposed structure for the zinc-binding domains from transcription factor IIIA and related proteins. Proc. Natl. Acad. Sci. USA 85: 99-102.
- 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., Aveskogh, M. and Hellman, L. 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.
- 5. 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.
- Durand, S., Abadie, P., Angeletti, S. and Genti-Raimondi, S. 2003. Identification of multiple differentially expressed messenger RNAs in normal and pathological trophoblast. Placenta 24: 209-218.
- 7. Carlson, K.A., Leisman, G., Limoges, J., Pohlman, G.D., Horiba, M., Buescher, J., Gendelman, H.E. and Ikezu, T. 2004. Molecular characterization of a putative antiretroviral transcriptional factor, OTK18. J. Immunol. 172: 381-391.
- Carlson, K.A., Limoges, J., Pohlman, G.D., Poluektova, L.Y., Langford, D., Masliah, E., Ikezu, T. and Gendelman, H.E. 2004. OTK18 expression in brain mononuclear phagocytes parallels the severity of HIV-1 encephalitis. J. Neuroimmunol. 150: 186-198.

# **CHROMOSOMAL LOCATION**

Genetic locus: ZNF175 (human) mapping to 19q13.41.

## **SOURCE**

OTK18 (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of OTK18 of human origin.

# **RESEARCH USE**

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

#### **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-131827 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## **APPLICATIONS**

OTK18 (D-14) is recommended for detection of OTK18 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 OTK18 siRNA (h): sc-97677, OTK18 shRNA Plasmid (h): sc-97677-SH and OTK18 shRNA (h) Lentiviral Particles: sc-97677-V.

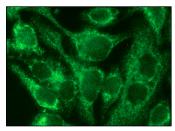
Molecular Weight of OTK18: 82 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

## **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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

# DATA



ZNF175 (D-14): sc-131827. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

### **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.