# ZNF282 (m): 293T Lysate: sc-124786



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. ZNF282 (zinc finger protein 282), also designated HUB1, is a 671 amino acid nuclear protein that contains one KRAB domain and five C<sub>2</sub>H<sub>2</sub>-type zinc fingers. Expressed ubiquitously, ZNF282 binds to the 5'-TCCACCCC-3' sequence within the U5 repressive element (U5RE) of the human T cell leukemia virus type I (HTLV-1) long terminal repeat. Through its interaction with the U5RE, ZNF282 effectively represses HTLV-1-mediated expression, thereby suppressing viral replication.

# **REFERENCES**

- Bellefroid, E.J., et al. 1991. The evolutionarily conserved Krüppel-associated box domain defines a subfamily of eukaryotic multifingered proteins. Proc. Natl. Acad. Sci. USA 88: 3608-3612.
- 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.
- Margolin, J.F., et al. 1994. Krüppel-associated boxes are potent transcriptional repression domains. Proc. Natl. Acad. Sci. USA 91: 4509-4513.
- 4. Okumura, K., et al. 1997. HUB1, a novel Krüppel type zinc finger protein, represses the human T cell leukemia virus type I long terminal repeatmediated expression. Nucleic Acids Res. 25: 5025-5032.
- Peng, H., et al. 2000. Biochemical analysis of the Krüppel-associated box (KRAB) transcriptional repression domain. J. Biol. Chem. 275: 18000-18010.
- Peng, H., et al. 2000. Reconstitution of the KRAB-KAP-1 repressor complex: a model system for defining the molecular anatomy of RING-B box-coiled-coil domain-mediated protein-protein interactions. J. Mol. Biol. 295: 1139-1162.
- 7. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 603397. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 8. Cheng, J., et al. 2005. Transcriptional maps of 10 human chromosomes at 5-nucleotide resolution. Science 308: 1149-1154.

#### **CHROMOSOMAL LOCATION**

Genetic locus: Zfp282 (mouse) mapping to 6 B2.3.

# **PRODUCT**

ZNF282 (m): 293T Lysate represents a lysate of mouse ZNF282 transfected 293T cells and is provided as 100  $\mu g$  protein in 200  $\mu l$  SDS-PAGE buffer.

# **STORAGE**

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

# **APPLICATIONS**

ZNF282 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive ZNF282 antibodies. Recommended use:  $10-20~\mu l$  per lane

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

# **RESEARCH USE**

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

#### **PROTOCOLS**

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

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