SANTA CRUZ BIOTECHNOLOGY, INC.

KLF6 (m): 293T Lysate: sc-121225



BACKGROUND

The Krüppel zinc finger transcription factor was initially identified in *Drosophila* as a segmentation gene. The mammalian family of Krüppel-type zinc finger transcription factors comprise a conserved family of DNA-binding proteins that are important in developmental regulation. The Krüppel-like factor 6 (KLF6) protein is a nuclear DNA-binding protein. KLF6 reduces cell proliferation by upregulating p21 in a p53-independent manner. KLF6 is also known as transcription factor ZF9, B cell derived 1 (BCD1), and core promoter element-binding protein (COPEB). KLF6 is predominantly expressed in the placenta but is also present in spleen, thymus, prostate, testis, small intestine and colon. In placenta, KLF6, KLF4 and pregnancy glycoprotein are co-expressed in the same cell types of placenta villi and membranes. The gene encoding human KLF6 maps to chromosome 10p15.1, and it is mutated in a subset of human prostate cancer.

REFERENCES

- Schuh, R., et al. 1986. A conserved family of nuclear proteins containing structural elements of the finger protein encoded by Krüppel, a *Drosophila* segmentation gene. Cell 47: 1025-1032.
- 2. Ruppert, J.M., et al. 1986. The GLI-Krüppel family of human genes. Mol. Cell. Biol. 8: 1025-1032.
- Ollo, R. et al. 1987. *Drosophila* Krüppel gene product produced in a baculovirus expression system is a nuclear phosphoprotein that binds to DNA. Proc. Natl. Acad. Sci. USA 84: 5700-5704.
- Anderson, K.P., et al. 1995. Isolation of a gene encoding a functional zinc finger protein homologous to erythroid Krüppel-like factor: identification of a new multigene family. Mol. Cell. Biol. 15: 5957-5965.
- 5. Bieker, J.J. 1996. Isolation, genomic strcutre, and expression of human erythroid Krüppel-like factor (EKLF). DNA Cell Biol. 15: 347-352.
- Shields, J.M., et al. 1996. Identification and characterization of a gene encoding a gut-enriched Krüppel-like factor expressed during growth arrest. J. Biol. Chem. 271: 20009-200017.
- Koritschoner, N.P., et al. 1997. A novel human zinc finger protein that interacts with the core promoter element of a TATA box-less gene. J. Biol. Chem. 272: 9573-9580.
- Ratziu, V., et al. 1998. Zf9, a Krüppel-like transcription factor up-regulated in vivo during early hepatic fibrosis. Proc. Natl. Acad. Sci. USA 95: 9500-9505.
- Sirach, E. et al. 2007. KLF6 transcription factor protects hepatocellular carcinoma-derived cells from apoptosis. Cell Death Differ. 14: 1202-1210.

CHROMOSOMAL LOCATION

Genetic locus: Klf6 (mouse) mapping to 13 A1.

PRODUCT

KLF6 (m): 293T Lysate represents a lysate of mouse KLF6 transfected 293T cells and is provided as 100 μg protein in 200 μl SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

KLF6 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive KLF6 antibodies. Recommended use: $10-20 \mu$ per lane.

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

KLF6 (E-10): sc-365633 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse KLF6 expression in KLF6 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA





KLF6 (E-10) HRP: sc-365633 HRP. Direct western blot analysis of KLF6 expression in non-transfected: sc-117752 (**A**) and mouse KRTAP13 transfected: sc-121255 (**B**) 293T whole cell lysates. KLF6 (E-10): sc-365633. Western blot analysis of KLF6 expression in non-transfected: sc-117752 (**A**) and mouse KLF6 transfected: sc-121225 (**B**) 293T whole cell lysates.

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.

PROTOCOLS

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