

# KLF6 (C-16): sc-20885

## 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.
- 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.
- Bieker, J.J. 1996. Isolation, genomic structure, 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: 20009-20017.
- 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.

## CHROMOSOMAL LOCATION

Genetic locus: KLF6 (human) mapping to 10p15.1; Klf6 (mouse) mapping to 13 A1.

## SOURCE

KLF6 (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of KLF6 of human origin.

## 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-20885 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

KLF6 (C-16) is recommended for detection of KLF6 of mouse, rat and 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).

KLF6 (C-16) is also recommended for detection of KLF6 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for KLF6 siRNA (h): sc-38021, KLF6 siRNA (m): sc-38022, KLF6 shRNA Plasmid (h): sc-38021-SH, KLF6 shRNA Plasmid (m): sc-38022-SH, KLF6 shRNA (h) Lentiviral Particles: sc-38021-V and KLF6 shRNA (m) Lentiviral Particles: sc-38022-V.

KLF6 (C-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

## 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) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## SELECT PRODUCT CITATIONS

- Xu, K., et al. 2011. Activating transcription factor 3 (ATF3) promotes sublytic C5b-9-induced glomerular mesangial cells apoptosis through up-regulation of Gadd45α and KLF6 gene expression. *Immunobiology* 216: 871-881.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **KLF6 (E-10): sc-365633** or **KLF6 (2F5): sc-134374**, our highly recommended monoclonal alternatives to KLF6 (C-16). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **KLF6 (E-10): sc-365633**.