

KLF6 (E-10): sc-365633



The Power to Question

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.

CHROMOSOMAL LOCATION

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

SOURCE

KLF6 (E-10) is a mouse monoclonal antibody raised against amino acids 28-201 of KLF6 of rat origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-365633 X, 200 µg/0.1 ml.

KLF6 (E-10) is available conjugated to agarose (sc-365633 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365633 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365633 PE), fluorescein (sc-365633 FITC), Alexa Fluor® 488 (sc-365633 AF488), Alexa Fluor® 546 (sc-365633 AF546), Alexa Fluor® 594 (sc-365633 AF594) or Alexa Fluor® 647 (sc-365633 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365633 AF680) or Alexa Fluor® 790 (sc-365633 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

KLF6 (E-10) is recommended for detection of KLF6 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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 (E-10) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

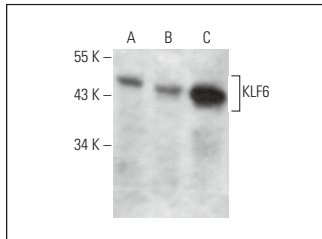
Molecular Weight of KLF6: 31 kDa.

Positive Controls: KLF6 (m): 293T Lysate: sc-121225.

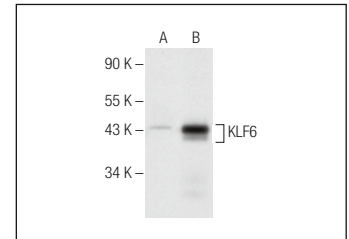
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



KLF6 (E-10): sc-365633. Western blot analysis of KLF6 expression in K-562 (A), Jurkat (B) and LADMAC (C) 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.

SELECT PRODUCT CITATIONS

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- Mallipattu, S.K., et al. 2015. Krüppel-like factor 6 regulates mitochondrial function in the kidney. *J. Clin. Invest.* 125: 1347-1361.
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- Yu, T., et al. 2020. KLF6 acetylation promotes sublytic C5b-9-induced production of MCP-1 and RANTES in experimental mesangial proliferative glomerulonephritis. *Int. J. Biol. Sci.* 16: 2340-2356.
- Hao, J., et al. 2021. Febuxostat prevents the cytotoxicity of propofol in brain endothelial cells. *ACS Omega* 6: 5471-5478.
- Liao, C.G., et al. 2022. Active demethylation upregulates CD147 expression promoting non-small cell lung cancer invasion and metastasis. *Oncogene* 41: 1780-1794.
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- Park, S., et al. 2023. The mammalian midbody and midbody remnant are assembly sites for RNA and localized translation. *Dev. Cell* 58: 1917-1932.e6.

RESEARCH USE

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

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