

# GKLF (B-9): sc-166100



The Power to Question

## BACKGROUND

The Krüppel-type zinc finger transcription factors comprise a conserved family of DNA binding proteins that are important in developmental regulation. The Krüppel zinc finger transcription factor was initially identified in *Drosophila* as a segmentation gene. Krüppel-like factors that have been characterized in mammals include EKLF, LKLF and GKLF. EKLF is expressed principally in erythroid tissues and LKLF expression is limited to the lung. GKLF is found predominantly in gut and has been shown to be expressed during growth arrest.

## REFERENCES

1. 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. Ollo, R. and Maniatis, T. 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.

## CHROMOSOMAL LOCATION

Genetic locus: KLF4 (human) mapping to 9q31.2.

## SOURCE

GKLF (B-9) is a mouse monoclonal antibody raised against amino acids 1-180 of GKLF of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> 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-166100 X, 200 µg/0.1 ml.

## STORAGE

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

## APPLICATIONS

GKLF (B-9) is recommended for detection of GKLF of 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 GKLF siRNA (h): sc-35480, GKLF shRNA Plasmid (h): sc-35480-SH and GKLF shRNA (h) Lentiviral Particles: sc-35480-V.

GKLF (B-9) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

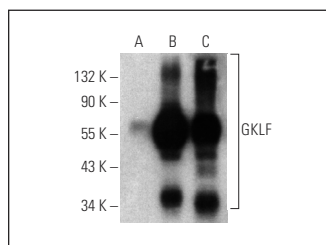
Molecular Weight of GKLF: 53 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, RPMI2650 whole cell lysate: sc-364192 or GKLF (h): 293T Lysate: sc-114641.

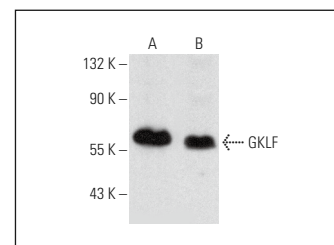
## RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



GKLF (B-9): sc-166100. Western blot analysis of GKLF expression in non-transfected: sc-117752 (A), human GKLF transfected: sc-114641 (B) and mouse GKLF transfected: sc-125385 (C) 293T whole cell lysates.



GKLF (B-9): sc-166100. Western blot analysis of GKLF expression in HeLa nuclear extract (A) and RPMI2650 whole cell lysate (B).

## SELECT PRODUCT CITATIONS

1. Fukushima, H., et al. 2013. SCF-mediated Cdh1 degradation defines a negative feedback system that coordinates cell-cycle progression. *Cell Rep.* 4: 803-816.
2. Eiró, N., et al. 2014. Potential therapeutic effect of the secretome from human uterine cervical stem cells against both cancer and stromal cells compared with adipose tissue stem cells. *Oncotarget* 5: 10692-10708.
3. Morales-Martinez, M., et al. 2019. Regulation of Krüppel-Like factor 4 (KLF4) expression through the transcription factor Yin-Yang 1 (YY1) in non-Hodgkin B-cell lymphoma. *Oncotarget* 10: 2173-2188.
4. Mehdi, S., et al. 2020. LY75 suppression in mesenchymal epithelial ovarian cancer cells generates a stable hybrid EOC cellular phenotype, associated with enhanced tumor initiation, spreading and resistance to treatment in orthotopic xenograft mouse model. *Int. J. Mol. Sci.* 21: 4992.
5. Liu, X., et al. 2023. SNAI2 attenuated the stem-like phenotype by reducing the expansion of EPCAM<sup>high</sup> cells in cervical cancer cells. *Int. J. Mol. Sci.* 24: 1062.

## RESEARCH USE

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



See **GKLF/EKLF/LKLF (F-8): sc-166238** for GKLF/EKLF/LKLF antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.