

GKLF (B-8): sc-393462

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

- 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.
- 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.
- Ruppert, J.M., et al. 1988. The GLI-Krüppel family of human genes. *Mol. Cell. Biol.* 8: 3104-3113.
- Chavrier, P., et al. 1988. Characterization of a mouse multigene family that encodes zinc finger structures. *Mol. Cell. Biol.* 8: 1319-1326.
- Bray, P., et al. 1991. Characterization and mapping of human genes encoding zinc finger proteins. *Proc. Natl. Acad. Sci. USA* 88: 9563-9567.

CHROMOSOMAL LOCATION

Genetic locus: KLF4 (human) mapping to 9q31.2; Klf4 (mouse) mapping to 4 B3.

SOURCE

GKLF (B-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 20-41 near the N-terminus of GKLF of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} 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-393462 X, 200 µg/0.1 ml.

GKLF (B-8) is available conjugated to agarose (sc-393462 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393462 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393462 PE), fluorescein (sc-393462 FITC), Alexa Fluor[®] 488 (sc-393462 AF488), Alexa Fluor[®] 546 (sc-393462 AF546), Alexa Fluor[®] 594 (sc-393462 AF594) or Alexa Fluor[®] 647 (sc-393462 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-393462 AF680) or Alexa Fluor[®] 790 (sc-393462 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393462 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

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

APPLICATIONS

GKLF (B-8) is recommended for detection of GKLF 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).

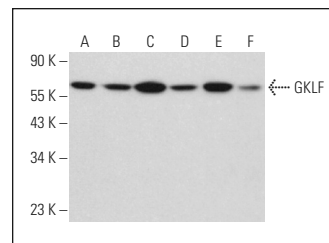
Suitable for use as control antibody for GKLF siRNA (h): sc-35480, GKLF siRNA (m): sc-35479, GKLF siRNA (r): sc-270507, GKLF shRNA Plasmid (h): sc-35480-SH, GKLF shRNA Plasmid (m): sc-35479-SH, GKLF shRNA Plasmid (r): sc-270507-SH, GKLF shRNA (h) Lentiviral Particles: sc-35480-V, GKLF shRNA (m) Lentiviral Particles: sc-35479-V and GKLF shRNA (r) Lentiviral Particles: sc-270507-V.

GKLF (B-8) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

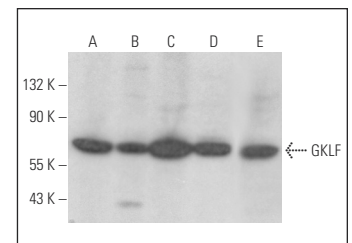
Molecular Weight of GKLF: 53 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, M1 whole cell lysate: sc-364782 or HEL 92.1.7 cell lysate: sc-2270.

DATA



GKLF (B-8): sc-393462. Western blot analysis of GKLF expression in M1 (A), K-562 (B), MEG-01 (C), ALL-SIL (D), TF-1 (E) and HEL 92.1.7 (F) whole cell lysates.



GKLF (B-8): sc-393462. Western blot analysis of GKLF expression in NIH/3T3 (A), A-431 (B) and HeLa (C) nuclear extracts and 3T3-L1 (D) and LADMAC (E) whole cell lysates.

SELECT PRODUCT CITATIONS

- Gunasekharan, V.K., et al. 2016. Post-transcriptional regulation of KLF4 by high-risk human papillomaviruses is necessary for the differentiation-dependent viral life cycle. *PLoS Pathog.* 12: e1005747.
- Senft, A.D., et al. 2018. Combinatorial Smad2/3 activities downstream of nodal signaling maintain embryonic/extra-embryonic cell identities during lineage priming. *Cell Rep.* 24: 1977-1985.
- Dhaliwal, N.K., et al. 2019. KLF4 protein stability regulated by interaction with pluripotency transcription factors overrides transcriptional control. *Genes Dev.* 33: 1069-1082.

STORAGE

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

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