

# LKLF (C-13): sc-18692

## 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 erythroid Kruppel-like transcription factor (EKLF), lung Krüppel-like transcription factor (LKLF) and gut Krüppel-like transcription factor (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. In the developing mouse embryo, LKLF is necessary for normal tunica media formation and blood vessel stabilization. LKLF is also sufficient to program quiescence in T cells by negatively regulating the c-Myc-dependent pathway. The gene for human LKLF maps to chromosome 19p13.11-p13.13.

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

## SOURCE

LKLF (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of LKLF 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-18692 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

LKLF (C-13) is recommended for detection of LKLF, GKLF and EKLF of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

LKLF (C-13) is also recommended for detection of LKLF, GKLF and EKLF in additional species, including bovine, porcine and avian.

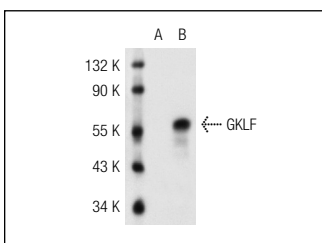
Molecular Weight of LKLF: 37 kDa.

Positive Controls: GKLF (h): 293T Lysate: sc-114641, GKLF (m): 293T Lysate: sc-125385 or 3T3-L1 cell lysate: sc-2243.

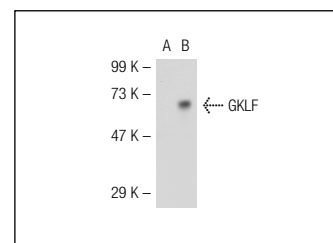
## RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



LKLF (C-13): sc-18692. Western blot analysis of GKLF expression in non-transfected: sc-117752 (A) and human GKLF transfected: sc-114641 (B) 293T whole cell lysates.



LKLF (C-13): sc-18692. Western blot analysis of GKLF expression in non-transfected: sc-117752 (A) and mouse GKLF transfected: sc-125385 (B) 293T whole cell lysates.

## RESEARCH USE

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



Try **GKLF/EKLF/LKLF (F-8): sc-166238**, our highly recommended monoclonal alternative to LKLF (C-13). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **GKLF/EKLF/LKLF (F-8): sc-166238**.