# SANTA CRUZ BIOTECHNOLOGY, INC.

# LRF (C-18): sc-34508



# BACKGROUND

LRF, formerly identified as Pokeman, is a poxvirus zinc finger (POZ) domaincontaining transcription factor that influences cell differentiation. LRF (for leukemia/lymphoma related factor) is also known as zinc finger and BTB domain containing 7A, ZBTB7, TIP21, FBI1 and FBI-1. POZ-domain transcription factors contain a POZ or BTB type protein-protein interaction domain at their N-terminus and krüppel-type zinc fingers at their C-terminus. LRF is inducible during both murine and human preadipocyte differentiation and may contribute to adipogenesis through influencing the switch from cellular proliferation to terminal differentiation. LRF can associate with active chromatin and stimulate TAT-activated HIV-1 transcription thruogh interactions with the HIV-1 long terminal repeat. 3T3L1 cells stably overexpressing LRF show a reduction in DNA synthesis and in expression of cyclin A, cyclindependent kinase 2 and p107.

# CHROMOSOMAL LOCATION

Genetic locus: ZBTB7A (human) mapping to 19p13.3; Zbtb7a (mouse) mapping to 10 C1.

# SOURCE

LRF (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of LRF of human origin.

# PRODUCT

Each vial contains 200  $\mu$ g lgG 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-34508 X, 200  $\mu$ g/0.1 ml.

Blocking peptide available for competition studies, sc-34508 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

# **APPLICATIONS**

LRF (C-18) is recommended for detection of LRF 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), immunohistochemistry (including paraffin-embedded sections) (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 LRF siRNA (h): sc-44574, LRF siRNA (m): sc-44575, LRF shRNA Plasmid (h): sc-44574-SH, LRF shRNA Plasmid (m): sc-44575-SH, LRF shRNA (h) Lentiviral Particles: sc-44574-V and LRF shRNA (m) Lentiviral Particles: sc-44575-V.

LRF (C-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of LRF: 72 kDa.

Positive Controls: Hs68 cell lysate: sc-2230, K-562 nuclear extract: sc-2130 or C32 nuclear extract: sc-2136.

### **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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> Mounting Medium: sc-24941. 4) Immuno-histochemistry: use ImmunoCruz<sup>™</sup>: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

# DATA





LRF (C-18): sc-34508. Western blot analysis of LRF expression in K-562 (**A**) and C32 (**B**) nuclear extracts.

LRF (C-18): sc-34508. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing nuclear and cytoplasmic staining of squamous epithelial cells (**B**).

# SELECT PRODUCT CITATIONS

 Zhao, M., et al. 2014. DNA methylation and mRNA and microRNA expression of SLE CD4<sup>+</sup> T cells correlate with disease phenotype. J. Autoimmun. 54: 127-136.

#### **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 or our catalog for detailed protocols and support products.

MONOS Satisfation Guaranteed

Try LRF (13E9): sc-33683 or LRF (H-6): sc-393012, our highly recommended monoclonal alternatives to LRF (C-18).