SANTA CRUZ BIOTECHNOLOGY, INC.

LITAF (C-5): sc-166719

BACKGROUND

Lipopolysaccharide (LPS) is a potent stimulator of monocytes and macrophages, causing secretion of tumor necrosis factor α (TNFα) and other inflammatory mediators. The inflammatory response to bacteria and bacterial products, such as LPS, is mediated by a variety of secreted factors, but cytotoxic effects of LPS have been ascribed to TNFα activity. LITAF (LPS-induced TNFα factor), Stat6B and the LITAF-Stat6B complex all play a role in the regulation of inflammatory cytokines in response to LPS or p53 stimulation in mammalian cells. LITAF is a nuclear protein crucial in TNFα gene transcription regulation. High levels of expression of LITAF mRNA have been observed predominantly in the placenta, peripheral blood leukocytes, lymph nodes and spleen.

CHROMOSOMAL LOCATION

Genetic locus: LITAF (human) mapping to 16p13.13; Litaf (mouse) mapping to 16 A1.

SOURCE

LITAF (C-5) is a mouse monoclonal antibody raised against amino acids 1-161 representing full length LITAF of human 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.

LITAF (C-5) is available conjugated to agarose (sc-166719 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166719 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166719 PE), fluorescein (sc-166719 FITC), Alexa Fluor® 488 (sc-166719 AF488), Alexa Fluor® 546 (sc-166719 AF546), Alexa Fluor® 594 (sc-166719 AF594) or Alexa Fluor® 647 (sc-166719 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166719 AF680) or Alexa Fluor® 790 (sc-166719 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

LITAF (C-5) is recommended for detection of LITAF 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 LITAF siRNA (h): sc-45684, LITAF siRNA (m): sc-45685, LITAF shRNA Plasmid (h): sc-45684-SH, LITAF shRNA Plasmid (m): sc-45685-SH, LITAF shRNA (h) Lentiviral Particles: sc-45684-V and LITAF shRNA (m) Lentiviral Particles: sc-45685-V.

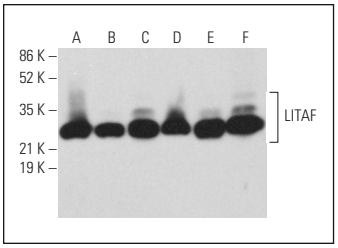
Molecular Weight of LITAF: 24 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Hep G2 cell lysate: sc-2227 or A-431 whole cell lysate: sc-2201.

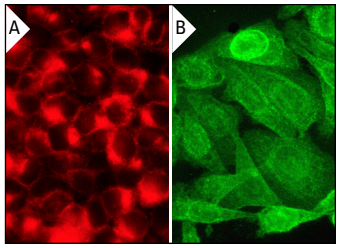
RECOMMENDED SUPPORT REAGENTS

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



LITAF (C-5): sc-166719. Western blot analysis of LITAF expression in HeLa (**A**), Hep G2 (**B**), A-431 (**C**), MCF7 (**D**), A549 (**E**) and SK-BR-3 (**F**) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



LITAF (C-5): sc-166719. Immunofluorescence staining of methanol-fixed HeLa (**A**) and SW480 (**B**) cells showing membrane localization.

SELECT PRODUCT CITATIONS

1. Bixler, G.V., et al. 2011. Chronic Insulin treatment of diabetes does not fully normalize alterations in the retinal transcriptome. BMC Med. Genomics 4: 40.
2. Liu, J., et al. 2020. Sequential CRISPR-based screens identify LITAF and CDIP1 as the *Bacillus cereus* hemolysin BL toxin host receptors. Cell Host Microbe 28: 402-410.e5.
3. Wunderley, L., et al. 2021. Endosomal recycling tubule scission and integrin recycling involve the membrane curvature-supporting protein LITAF. J. Cell Sci. 134: jcs258549.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.