

# LITAF (C-5): sc-166719

## BACKGROUND

Lipopolysaccharide (LPS) is a potent stimulator of monocytes and macrophages, causing secretion of tumor necrosis factor  $\alpha$  (TNF $\alpha$ ) 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 TNF $\alpha$  activity. LITAF (LPS-induced TNF $\alpha$  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 TNF $\alpha$  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  $\mu$ g IgG<sub>2b</sub> 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  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166719 HRP), 200  $\mu$ g/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  $\mu$ g/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  $\mu$ g/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  $\mu$ g per 100-500  $\mu$ g 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.

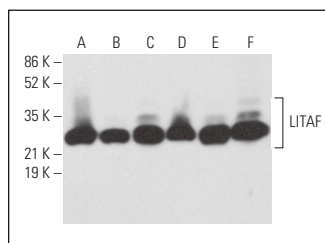
Molecular Weight of LITAF: 24 kDa.

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

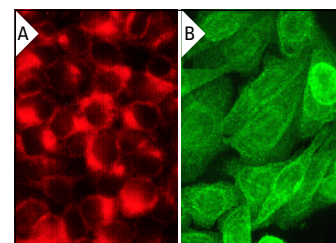
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  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-IgG $\kappa$  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

- 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.
- 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.
- Wunderley, L., et al. 2021. Endosomal recycling tubule scission and integrin recycling involve the membrane curvature-supporting protein LITAF. J. Cell Sci. 134: jcs258549.
- Yu, J., et al. 2023. Kavain ablates the radio-resistance of IDH-wildtype glioblastoma by targeting LITAF/NF $\kappa$ B pathway. Cell. Oncol. 46: 179-193.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

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