

LITAF (N-12): sc-46152

BACKGROUND

Lipopolysaccharide (LPS) is a potent stimulator of monocytes and macrophages, causing secretion of tumor necrosis factor α (TNF- α) 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 the tumor necrosis factor alpha (TNF- α) activity. LITAF (LPS-induced TNF- α factor), STAT6(B), and the LITAF-STAT6(B) 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- α gene transcription regulation. High levels of expression of LITAF mRNA have been observed predominantly in the placenta, peripheral blood leukocytes, lymph nodes and the spleen.

REFERENCES

1. Myokai, F., et al. 1999. A novel lipopolysaccharide-induced transcription factor regulating tumor necrosis factor- α gene expression: molecular cloning, sequencing, characterization, and chromosomal assignment. *Proc. Natl. Acad. Sci. USA* 96: 4518-4523.
2. Zhou, H.R., et al. 2003. Kinetics of lipopolysaccharide-induced transcription factor activation/inactivation and relation to proinflammatory gene expression in the murine spleen. *Toxicol. Appl. Pharmacol.* 187: 147-161.
3. Matsumura, Y., et al. 2004. PIG7/LITAF gene mutation and overexpression of its gene product in extramammary Paget's disease. *Int. J. Cancer* 111: 218-223.
4. Bolcato-Bellemin, A.L., et al. 2004. Molecular cloning and characterization of mouse LITAF cDNA: role in the regulation of tumor necrosis factor- α (TNF- α) gene expression. *J. Endotoxin Res.* 10: 15-23.
5. Tang, X., et al. 2005. LPS induces the interaction of a transcription factor, LPS-induced TNF- α factor, and STAT6(B) with effects on multiple cytokines. *Proc. Natl. Acad. Sci. USA* 102: 5132-5137.

CHROMOSOMAL LOCATION

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

SOURCE

LITAF (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of LITAF of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-46152 P, (100 μ g 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

LITAF (N-12) is recommended for detection of LITAF of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

LITAF (N-12) is also recommended for detection of LITAF in additional species, including bovine.

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: RAW 264.7 whole cell lysate: sc-2211, HeLa whole cell lysate: sc-2200 or A-431 whole cell lysate: sc-2201.

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) 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.

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.



Try **LITAF (C-5): sc-166719** or **LITAF (D-5): sc-166546**, our highly recommended monoclonal alternatives to LITAF (N-12).