SANTA CRUZ BIOTECHNOLOGY, INC.

LITAF (C-16): sc-46150

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 16p12; Litaf (mouse) mapping to 16 B1-B3.

SOURCE

LITAF (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of LITAF 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-46150 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

LITAF (C-16) is recommended for detection of LITAF of human origin by 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.

Molecular Weight of LITAF: 24 kDa.

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.