



LST1 (M-15): sc-107704

BACKGROUND

LST1 (leukocyte-specific transcript 1), also known as B144, is a 97 amino acid protein single-pass membrane protein. LST1 may play a role in modulating immune responses, as well as dendritic cell maturation. LST1 has also been found to induce morphological changes, including microspikes and filopodia, when overexpressed in a variety of cell types. Localized to the endomembrane system, LST1 is expressed as nine isoforms produced by alternative splicing. Isoform 1, also designated LST1A, and isoform 2, also designated LST1C, have inhibitory effects on lymphocyte proliferation. Induced by IFN- γ , LST1 is expressed in adult lung, thymus, placenta, kidney and tonsil and fetal liver, spleen and brain.

REFERENCES

- Neville, M.J. and Campbell, R.D. 1997. Alternative splicing of the LST1 gene located in the major histocompatibility complex on human chromosome 6. *DNA Seq.* 8: 155-160.
- de Baey, A., et al. 1997. Complex expression pattern of the TNF region gene LST1 through differential regulation, initiation, and alternative splicing. *Genomics* 45: 591-600.
- Yu, X. and Weissman, S.M. 2000. Characterization of the promoter of human leukocyte-specific transcript 1. A small gene with a complex pattern of alternative transcripts. *J. Biol. Chem.* 275: 34597-34608.
- Rollinger-Holzinger, I., et al. 2000. LST1: a gene with extensive alternative splicing and immunomodulatory function. *J. Immunol.* 164: 3169-3176.
- Raghunathan, A., et al. 2001. Functional analysis of B144/LST1: a gene in the tumor necrosis factor cluster that induces formation of long filopodia in eukaryotic cells. *Exp. Cell Res.* 268: 230-244.
- Ferlazzo, G., et al. 2002. Human dendritic cells activate resting natural killer (NK) cells and are recognized via the NKp30 receptor by activated NK cells. *J. Exp. Med.* 195: 343-351.
- Castriconi, R., et al. 2003. Transforming growth factor β 1 inhibits expression of NKp30 and NKG2D receptors: consequences for the NK-mediated killing of dendritic cells. *Proc. Natl. Acad. Sci. USA* 100: 4120-4125.
- Lehner, B., et al. 2004. Analysis of a high-throughput yeast two-hybrid system and its use to predict the function of intracellular proteins encoded within the human MHC class III region. *Genomics* 83: 153-167.

CHROMOSOMAL LOCATION

Genetic locus: Lst1 (mouse) mapping to 17 B1.

SOURCE

LST1 (M-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of LST1 of mouse origin.

STORAGE

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

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-107704 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LST1 (M-15) is recommended for detection of LST1 of mouse 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).

Suitable for use as control antibody for LST1 siRNA (m): sc-149136, LST1 shRNA Plasmid (m): sc-149136-SH and LST1 shRNA (m) Lentiviral Particles: sc-149136-V.

Molecular Weight of LST1: 11 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.