SANTA CRUZ BIOTECHNOLOGY, INC.

TSG-6 (m): 293T Lysate: sc-127721

BACKGROUND

The TSG6 gene is transcribed in normal fibroblasts and activated by binding of the cytokines TNFα and IL-1 at AP-1 and NF-IL6 sites in its promoter. TSG-6 is a member of the hyaluronan-binding protein family, which includes cartilage link protein, proteoglycan core protein and the adhesion receptor CD44. TSG-6 is highly homologous to CD44, particularly in the hyaluronic acid-binding domain. TSG-6 is a glycoprotein found in TNF-treated cells. TSG-6 expression is rapidly activated by TNFα, IL-1 and lipopolysaccharide in normal fibroblasts, peripheral blood mononuclear cells, synovial cells and chondrocytes. The presence of TSG-6 in synovial fluid suggests a possible role in rheumatoid arthritis. The gene which encodes TSG-6 maps to human chromosome 2. TSG-6 protein forms a stable complex with components of the serine protease inhibitor, inter-α-inhibitor (LAL). TSG-6 potentiates the inhibitory effect of LAL on the protease activity of plasmin. Through their cooperative inhibitory effect on plasmin, TSG-6 and LAL can modulate the protease network and thus inhibit inflammation.

REFERENCES

1. Lee, T.H., Wisniewski, H.G. and Vilcek, J. 1992. A novel secretory tumor necrosis factor-inducible protein (TSG-6) is a member of the family of hyaluronate binding proteins, closely related to the adhesion receptor CD44. J. Cell Biol. 116: 545-557.
2. Wisniewski, H.G., Maier, R., Lotz, M., Lee, S., Klampfer, L., Lee, T.H. and Vilcek, J. 1993. TSG-6: a TNF-, IL-1-, and LPS-inducible secreted glycoprotein associated with arthritis. J. Immunol. 151: 6593-6601.
3. Lee, T.H., Klampfer, L., Shows, T.B. and Vilcek, J. 1993. Transcriptional regulation of TSG6, a tumor necrosis factor- and interleukin-1-inducible primary response gene coding for a secreted hyaluronan-binding protein. J. Biol. Chem. 268: 6154-6160.
4. Wisniewski, H.G., Burgess, W.H., Oppenheim, J.D. and Vilcek, J. 1994. TSG-6, an arthritis-associated hyaluronan binding protein, forms a stable complex with the serum protein inter-α-inhibitor. Biochemistry 33: 7423-7429.
5. Klampfer, L., Lee, T.H., Hsu, W., Vilcek, J. and Chen-Kiang, S. 1994. NF-IL6 and AP-1 cooperatively modulate the activation of the TSG-6 gene by tumor necrosis factor α and interleukin-1. Mol. Cell. Biol. 14: 6561-6569.

CHROMOSOMAL LOCATION

Genetic locus: Tnfaip6 (mouse) mapping to 2 C1.1.

PRODUCT

TSG-6 (m): 293T Lysate represents a lysate of mouse TSG-6 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

APPLICATIONS

TSG-6 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive TSG-6 antibodies. Recommended use: 10-20 µl per lane.

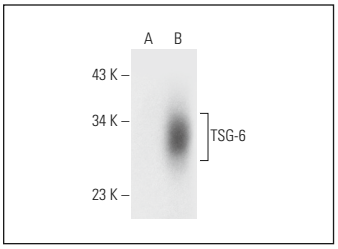
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

TSG-6 (D-4): sc-398307 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse TSG-6 expression in TSG-6 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



TSG-6 (D-4): sc-398307. Western blot analysis of TSG-6 expression in non-transfected: sc-117752 (**A**) and mouse TSG-6 transfected: sc-127721 (**B**) 293T whole cell lysates.

PROTOCOLS

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