SANTA CRUZ BIOTECHNOLOGY, INC.

TSG-6 (FL-277): sc-30140

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

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 glycoprotein and 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 found in TNF-treated cells; its 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. TSG-6 forms a stable complex with components of the serine protease inhibitor, inter-α-inhibitor (Ial)). TSG-6 potentiates the inhibitory effect of Ial on the protease activity of plasmin. Through their cooperative inhibitory effect on plasmin, TSG-6 and Ial can modulate the protease network and thus inhibit inflammation.

CHROMOSOMAL LOCATION

Genetic locus: TNFAIP6 (human) mapping to 2q23.3; Tnfaip6 (mouse) mapping to 2 C1.1.

SOURCE

TSG-6 (FL-277) is a rabbit polyclonal antibody raised against amino acids 135-277 mapping at the C-terminus of TSG-6 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.

RESEARCH USE

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

APPLICATIONS

TSG-6 (FL-277) is recommended for detection of precursor and mature chain of TSG-6 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

TSG-6 (FL-277) is also recommended for detection of precursor and mature chain of TSG-6 in additional species, including equine, canine, bovine and porcine.

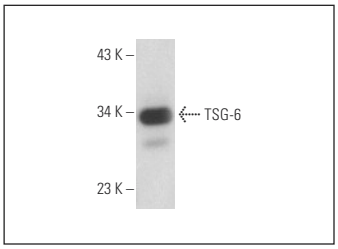
Suitable for use as control antibody for TSG-6 siRNA (h): sc-39819, TSG-6 siRNA (m): sc-39820, TSG-6 siRNA (r): sc-270514, TSG-6 shRNA Plasmid (h): sc-39819-SH, TSG-6 shRNA Plasmid (m): sc-39820-SH, TSG-6 shRNA Plasmid (r): sc-270514-SH, TSG-6 shRNA (h) Lentiviral Particles: sc-39819-V, TSG-6 shRNA (m) Lentiviral Particles: sc-39820-V and TSG-6 shRNA (r) Lentiviral Particles: sc-270514-V.

Molecular Weight of TSG-6: 35 kDa.

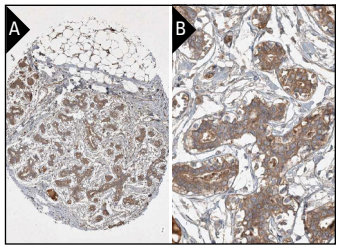
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



TSG-6 (FL-277): sc-30140. Western blot analysis of human recombinant TSG-6 under reducing conditions.



TSG-6 (FL-277): sc-30140. Immunoperoxidase staining of formalin fixed, paraffin-embedded human breast tissue showing cytoplasmic staining of glandular cells in low (**A**) and high (**B**) resolution. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

SELECT PRODUCT CITATIONS

1. He, H., et al. 2009. Biochemical characterization and function of complexes formed by hyaluronan and the heavy chains of inter-α-inhibitor (HC*HA) purified from extracts of human amniotic membrane. J. Biol. Chem. 284: 20136-20146.
2. Bianchi, M.S., et al. 2012. Oligodeoxynucleotide IMT504: lack of effect on immune parameters during islet regeneration in single dose streptozotocin-induced diabetes. Diabetes Metab. Res. Rev. 28: 156-163.
3. Wang, N., et al. 2012. Novel mechanism for mesenchymal stem cells in attenuating peritoneal adhesion: accumulating in the lung and secreting tumor necrosis factor α-stimulating gene-6. Stem Cell Res Ther. 3: 51.

STORAGE

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