

TSG-6 (D-4): sc-398307

BACKGROUND

The TSG6 gene is transcribed in normal fibroblasts and activated by binding of the cytokines TNF α 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 TNF α , 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 (I α I)). TSG-6 potentiates the inhibitory effect of I α I on the protease activity of plasmin. Through their cooperative inhibitory effect on plasmin, TSG-6 and I α I 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 (D-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 22-51 at the N-terminus of TSG-6 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-398307 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

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

APPLICATIONS

TSG-6 (D-4) is recommended for detection of precursor and mature chain of TSG-6 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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 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.

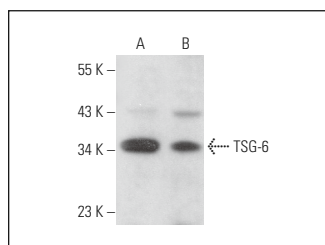
Molecular Weight of TSG-6: 35 kDa.

Positive Controls: THP-1 cell lysate: sc-2238, Hep G2 cell lysate: sc-2227 or TSG-6 (m): 293T Lysate: sc-127721.

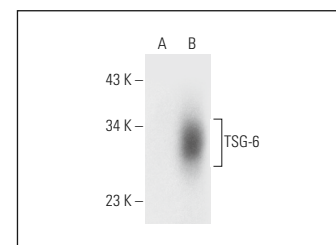
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



TSG-6 (D-4): sc-398307. Western blot analysis of TSG-6 expression in Hep G2 (A) and THP-1 (B) whole cell lysates.



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.

SELECT PRODUCT CITATIONS

- Wan, S., et al. 2018. FAK- and YAP/TAZ dependent mechanotransduction pathways are required for enhanced immunomodulatory properties of adipose-derived mesenchymal stem cells induced by aligned fibrous scaffolds. *Biomaterials* 171: 107-117.
- Cho, K.A., et al. 2019. Conditioned medium from human palatine tonsil mesenchymal stem cells attenuates acute graft-vs.-host disease in mice. *Mol. Med. Rep.* 19: 609-616.
- Wan, S., et al. 2020. Promotion of the immunomodulatory properties and osteogenic differentiation of adipose-derived mesenchymal stem cells in vitro by lentivirus-mediated miR-146a sponge expression. *J. Tissue Eng. Regen. Med.* 14: 1581-1591.
- Liu, C.W., et al. 2021. Tilapia piscidin 4 (TP4) reprograms M1 macrophages to M2 phenotypes in cell models of *Gardnerella vaginalis*-induced vaginosis. *Front. Immunol.* 12: 773013.

STORAGE

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



See **TSG-6 (E-1): sc-377277** for TSG-6 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.