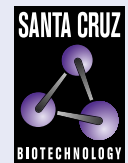


TSG-6 (E-1): sc-377277



The Power to Question

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 (α I). TSG-6 potentiates the inhibitory effect of α I on the protease activity of plasmin. Through their cooperative inhibitory effect on plasmin, TSG-6 and α I can modulate the protease network and thus inhibit inflammation.

CHROMOSOMAL LOCATION

Genetic locus: TNFAIP6 (human) mapping to 2q23.3.

SOURCE

TSG-6 (E-1) is a mouse monoclonal antibody raised against amino acids 135-277 mapping at the C-terminus of TSG-6 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TSG-6 (E-1) is available conjugated to agarose (sc-377277 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377277 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377277 PE), fluorescein (sc-377277 FITC), Alexa Fluor[®] 488 (sc-377277 AF488), Alexa Fluor[®] 546 (sc-377277 AF546), Alexa Fluor[®] 594 (sc-377277 AF594) or Alexa Fluor[®] 647 (sc-377277 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-377277 AF680) or Alexa Fluor[®] 790 (sc-377277 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

TSG-6 (E-1) is recommended for detection of precursor and mature chain of TSG-6 of 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), 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).

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

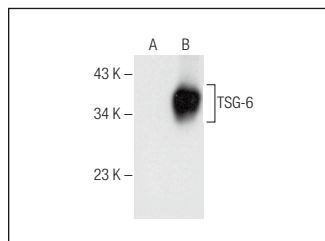
Molecular Weight of TSG-6: 35 kDa.

Positive Controls: TSG-6 (h): 293T Lysate: sc-114157.

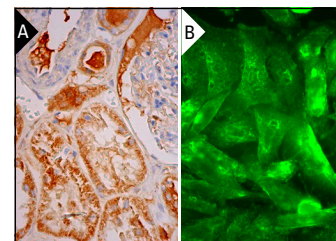
STORAGE

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

DATA



TSG-6 (E-1): sc-377277. Western blot analysis of TSG-6 expression in non-transfected: sc-117752 (A) and human TSG-6 transfected: sc-114157 (B) 293T whole cell lysates.



TSG-6 (E-1): sc-377277. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules and staining of plasma in blood vessels (A). TSG-6 (E-1) Alexa Fluor[®] 488: sc-377277 AF488. Direct immunofluorescence staining of formalin-fixed SW480 cells showing cell surface localization. Blocked with UltraCruz[®] Blocking Reagent: sc-516214 (B).

SELECT PRODUCT CITATIONS

- 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.
- Campbell, M.R., et al. 2013. Novel hematopoietic target genes in the Nrf2-mediated transcriptional pathway. *Oxid. Med. Cell. Longev.* 2013: 120305.
- Chou, C.H., et al. 2018. TSG-6—a double-edged sword for osteoarthritis (OA). *Osteoarthr. Cartil.* 26: 245-254.
- Rychkov, D., et al. 2021. Cross-tissue transcriptomic analysis leveraging machine learning approaches identifies new biomarkers for rheumatoid arthritis. *Front. Immunol.* 12: 638066.
- Gong, S.C., et al. 2022. Antifibrotic TSG-6 expression is synergistically increased in both cells during coculture of mesenchymal stem cells and macrophages via the JAK/STAT signaling pathway. *Int. J. Mol. Sci.* 23: 13122.
- Zuo, M., et al. 2023. IL411-catalyzed tryptophan metabolites mediate the anti-inflammatory function of cytokine-primed human muscle stem cells. *Cell Death Discov.* 9: 269.

RESEARCH USE

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

PROTOCOLS

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