

TSG-6 (N-20): sc-21828

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 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. TSG-6 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. 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 (α 1). TSG-6 potentiates the inhibitory effect of α 1 on the protease activity of plasmin. Through their cooperative inhibitory effect on plasmin, TSG-6 and α 1 can modulate the protease network and thus inhibit inflammation.

REFERENCES

- Lee, T.H., et al. 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.
- Wisniewski, H.G., et al. 1993. TSG-6: a TNF-, IL-1-, and LPS-inducible secreted glycoprotein associated with arthritis. *J. Immunol.* 151: 6593-6601.
- Lee, T.H., et al. 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.
- Wisniewski, H.G., et al. 1994. TSG-6, an arthritis-associated hyaluronan binding protein, forms a stable complex with the serum protein inter- α -inhibitor. *Biochemistry* 33: 7423-7429.
- Klampfer, L., et al. 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 (human) mapping to 2q23.3; Tnfaip6 (mouse) mapping to 2 C1.1.

SOURCE

TSG-6 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of TSG-6 of human origin.

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-21828 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

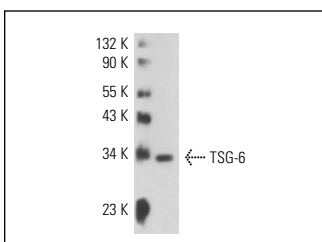
TSG-6 (N-20) is recommended for detection of precursor and mature chain of TSG-6 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

TSG-6 (N-20) is also recommended for detection of precursor and mature chain of TSG-6 in additional species, including equine, canine, bovine, porcine and avian.

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

Molecular Weight of TSG-6: 35 kDa.

DATA



TSG-6 (N-20): sc-21828. Western blot analysis of human recombinant TSG-6 under reducing conditions.

SELECT PRODUCT CITATIONS

- Kuznetsova, S., et al. 2005. The N-terminal module of thrombospondin-1 interacts with the link domain of TSG-6 and enhances its covalent association with the heavy chains of inter- α -trypsin inhibitor. *J. Biol. Chem.* 280: 30899-30908.

STORAGE

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

RESEARCH USE

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



Try **TSG-6 (E-1): sc-377277** or **TSG-6 (D-4): sc-398307**, our highly recommended monoclonal alternatives to TSG-6 (N-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **TSG-6 (E-1): sc-377277**.