Human TSG-6 Alexa Fluor® 488-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF2104G
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human TSG-6 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 70% cross-reactivity with recombinant mouse TSG-6 is observed and less than 2% cross-reactivity with recombinant human TSG-14 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human TSG-6 Trp18-Leu277 Accession # P98066
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

TSG-6 (TNF-stimulated Gene 6), also known as TNFIP6 is a secreted, 35-39 kDa group A member of the LINK-Module superfamily of proteins (1-4). Human TSG-6 is synthesized as a 277 amino acid (aa) precursor. It contains a 17 aa signal sequence and a 260 aa mature region (5, 6). The mature region shows an N-terminal LINK module (amino acids 36-129) and a C-terminal CUB (C1s/C1r; urchin embryonic growth factor; BMP1) domain (amino acids 135-247). Link modules are α-helical, β-sheet structures that bind hyaluronan (HA) and participate in extracellular matrix (ECM) assembly (7). Mature human TSG-6 shares 94% aa identity with both mouse and canine TSG-6. Cells reported to express TSG-6 include activated fibroblasts, synoviocytes, chondrocytes, neutrophils, proximal tubular epithelium, bronchial epithelium, endothelium, and visceral, plus vascular smooth muscle (2, 8). TSG-6 has multiple functions, many of which involve the ECM. It is suggested to stabilize HA-rich ECM. It does so by serving as an intermediary, or link, between the individual subunits of extracellular decameric pentraxin 3 and the surrounding hyaluronan matrix (9). It also provides structure and organization to hyaluronan. This is accomplished by a TSG-6 mediated transfer of an 80-85 kDa HC subunit from IαI (inter-α-inhibitor) to HA. IαI is a four-component, 225 kDa serine protease inhibitor. It contains a protease inhibitor subunit (bikunin), two independent, accompaning protein chains (HC1 and HC2), and a short chondroitin sulfate linking moiety. TSG-6 is a cation-dependent catalyst for the removal, transfer, and subsequent covalent linkage of HC 1/2 to surrounding HA. This provides substance and reinforcement to the ECM (1, 2, 10-12). The disassembly of IαI also leads to free bikunin, which in the “free” state becomes a potent inhibitor of serine proteases (8).

PRODUCT SPECIFIC NOTICES

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