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Anti-TSG6 Antibody

Catalog # AP53707

Product Information

Application	WB, IHC, IF/IC
Primary Accession	P98066
Reactivity	Human, Mouse, Rat, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	31203

Additional Information

Gene ID	7130
Other Names	TSG6; Tumor necrosis factor-inducible gene 6 protein; Hyaluronate-binding protein; TNF-stimulated gene 6 protein; TSG-6; Tumor necrosis factor alpha-induced protein 6; TNF alpha-induced protein 6
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human TSG6. The exact sequence is proprietary.
Dilution	WB~~1/500 - 1/1000 IHC~~1/50 - 1/200 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

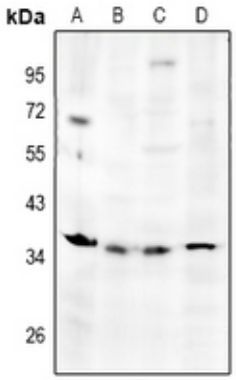
Name	TNFAIP6
Synonyms	TSG6
Function	Major regulator of extracellular matrix organization during tissue remodeling (PubMed:15917224, PubMed:18042364, PubMed:26823460). Catalyzes the transfer of a heavy chain (HC) from inter-alpha-inhibitor (I-alpha-I) complex to hyaluronan. Cleaves the ester bond between the C-terminus of the HC and GalNAc residue of the chondroitin sulfate chain in I-alpha-I complex followed by transesterification of the HC to hyaluronan. In the process, potentiates the antiprotease function of I- alpha-I complex through release of free bikunin (PubMed:15917224, PubMed:16873769, PubMed:20463016). Acts as a catalyst in the formation of hyaluronan-HC oligomers and hyaluronan-rich matrix surrounding the cumulus cell-oocyte complex, a necessary step for oocyte fertilization (PubMed:26468290). Assembles hyaluronan in pericellular matrices that serve as platforms for

receptor clustering and signaling. Enables binding of hyaluronan deposited on the surface of macrophages to LYVE1 on lymphatic endothelium and facilitates macrophage extravasation. Alters hyaluronan binding to functionally latent CD44 on vascular endothelium, switching CD44 into an active state that supports leukocyte rolling (PubMed:15060082, PubMed:26823460). Modulates the interaction of chemokines with extracellular matrix components and proteoglycans on endothelial cell surface, likely preventing chemokine gradient formation (PubMed:27044744). In a negative feedback mechanism, may limit excessive neutrophil recruitment at inflammatory sites by antagonizing the association of CXCL8 with glycosaminoglycans on vascular endothelium (PubMed:24501198). Has a role in osteogenesis and bone remodeling. Inhibits BMP2-dependent differentiation of mesenchymal stem cell to osteoblasts (PubMed:16771708, PubMed:18586671). Protects against bone erosion during inflammation by inhibiting TNFSF11/RANKL- dependent osteoclast activation (PubMed:18586671).

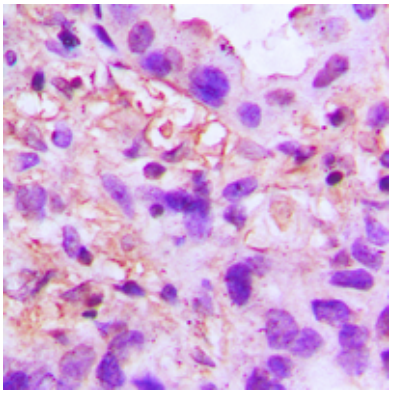
Cellular Location Secreted.

Tissue Location Expressed in airway epithelium and submucosal gland (at protein level). Colocalizes with bikunin at the ciliary border Present in bronchoalveolar lavage fluid (at protein level) (PubMed:16873769). Expressed in mesenchymal stem cells (PubMed:16771708). Found in the synovial fluid of patients with rheumatoid arthritis.

Images

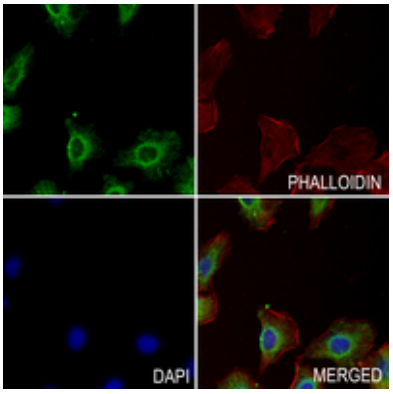


Western blot analysis of TSG6 expression in HEK293T (A), mouse kidney (B), rat kidney (C), PC3 (D) whole cell lysates. (Predicted band size: 31 kD; Observed band size: 35 kD)

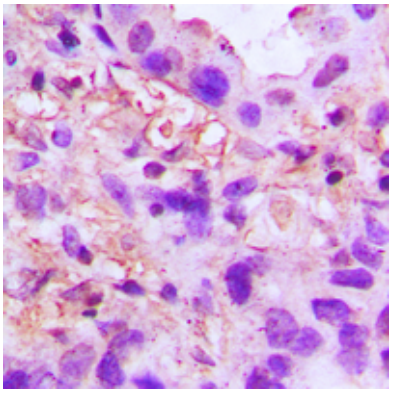


Immunohistochemical analysis of TSG6 staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Immunofluorescent analysis of TSG6 staining in A549 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and



incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).



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