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Anti-Tensin 3 Antibody

Catalog # AP53931

Product Information

Application	WB, IHC, IF/IC
Primary Accession	Q68CZ2
Reactivity	Human, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	155266

Additional Information

Gene ID	64759
Other Names	TEM6; TENS1; TPP; Tensin-3; Tensin-like SH2 domain-containing protein 1; Tumor endothelial marker 6
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Tensin 3. The exact sequence is proprietary.
Dilution	WB~~1/500 - 1/2000 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	TNS3
Synonyms	TEM6, TENS1, TPP
Function	May act as a protein phosphatase and/or a lipid phosphatase (Probable). Involved in the dissociation of the integrin-tensin-actin complex (PubMed:17643115). EGF activates TNS4 and down-regulates TNS3 which results in capping the tail of ITGB1 (PubMed:17643115). Increases DOCK5 guanine nucleotide exchange activity towards Rac and plays a role in osteoclast podosome organization (By similarity). Enhances RHOA activation in the presence of DLC1 (PubMed:26427649). Required for growth factor-induced epithelial cell migration; growth factor stimulation induces TNS3 phosphorylation which changes its binding preference from DLC1 to the p85 regulatory subunit of the PI3K kinase complex, displacing PI3K inhibitor PTEN and resulting in translocation of the TNS3-p85 complex to the leading edge of migrating cells to promote RAC1 activation (PubMed:26166433). Meanwhile, PTEN switches binding preference from p85 to DLC1 and the

PTEN-DLC1 complex translocates to the posterior of migrating cells to activate RHOA (PubMed:26166433). Acts as an adapter protein by bridging the association of scaffolding protein PEAK1 with integrins ITGB1, ITGB3 and ITGB5 which contributes to the promotion of cell migration (PubMed:35687021). Controls tonsil-derived mesenchymal stem cell proliferation and differentiation by regulating the activity of integrin ITGB1 (PubMed:31905841).

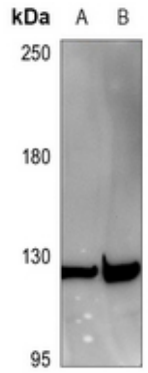
Cellular Location

Cell junction, focal adhesion. Cell projection, podosome {ECO:0000250|UniProtKB:Q5SSZ5}. Note=Localizes to both focal and fibrillar adhesions but is mostly found in fibrillar adhesions.

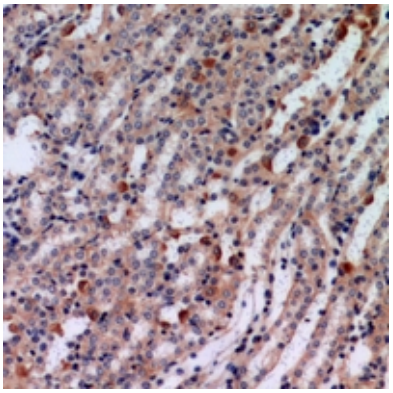
Tissue Location

Expressed in umbilical vein endothelial cells, epithelial cells, and fibroblasts cells (at protein level). Highly expressed in thyroid, kidney and placenta. Low expression in heart, skeletal muscle, spleen, liver, and lung. Expressed at higher levels in tonsil-derived mesenchymal stem cells (MSCs) than in adipose tissue- derived MSCs or bone marrow-derived MSCs (PubMed:31905841). Expressed in tumor endothelial cells. Expression seems to be down-regulated in thyroid tumor tissues and in anaplastic carcinomas

Images

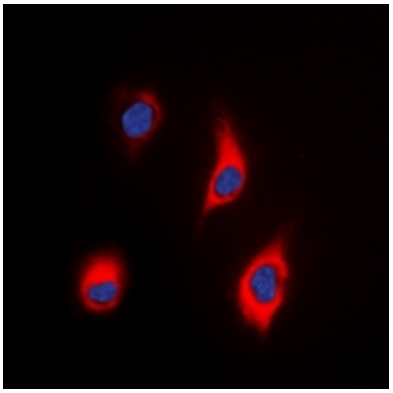


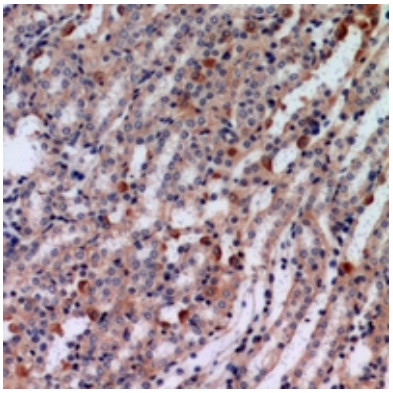
Western blot analysis of Tensin 3 expression in Panc1 (A), MEF (B) whole cell lysates. (Predicted band size: 155 kD; Observed band size: 129 kD)



Immunohistochemical analysis of Tensin 3 staining in human kindey 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 Tensin 3 staining in HeLa 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 DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).





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