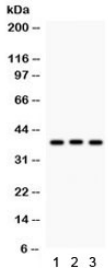
CTGF Antibody / Extracellular Matrix Remodeling Antibody (R32048)

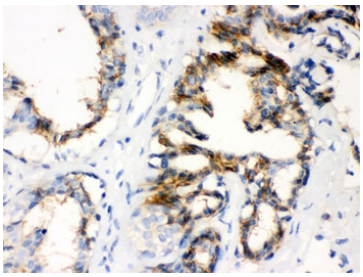
Catalog No.	Formulation	Size
R32048	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide
UniProt	P29279
Localization	Cytoplasmic, secreted
Applications	Western Blot : 0.1-0.5ug/ml IHC (FFPE) : 0.5-1ug/ml
Limitations	This CTGF Antibody / Extracellular Matrix Remodeling Antibody is available for research use only.



CTGF Antibody WB. Western blot analysis of 1) rat liver, 2) rat thymus, and 3) human HeLa cell lysates using CTGF Antibody / Extracellular Matrix Remodeling Antibody demonstrates a distinct immunoreactive band at approximately 38 kDa in all samples tested. The observed molecular weight is consistent with the predicted size of Connective Tissue Growth Factor (CTGF), also known as Cellular Communication Network Factor 2 (CCN2), a secreted matricellular protein involved in extracellular matrix regulation, tissue remodeling, and cellular signaling. Consistent detection across rodent and human samples supports recognition of a conserved CTGF epitope and demonstrates broad species reactivity. The observed immunoreactivity highlights the utility of this antibody for studies of fibrosis, connective tissue biology, extracellular matrix remodeling, wound healing, and tumor microenvironment signaling.



CTGF Antibody in Human Breast Cancer IHC. Immunohistochemistry staining of FFPE human breast cancer tissue with CTGF Antibody at 1 ug/ml. Heat-induced epitope retrieval (HIER) was performed in EDTA buffer, pH 8.0, followed by blocking with 10% goat serum. The tissue was incubated with the primary antibody overnight at 4oC, followed by a biotinylated goat anti-rabbit IgG secondary antibody for 30 min at 37oC and DAB detection. CTGF staining is observed in the breast tumor cells. This CTGF Antibody demonstrates detection of CTGF in human breast cancer tissue.

Description

CTGF Antibody / Extracellular Matrix Remodeling Antibody recognizes Connective Tissue Growth Factor (CTGF), also known as Cellular Communication Network Factor 2 (CCN2), a secreted matricellular protein that serves as a key regulator of extracellular matrix organization, tissue remodeling, cellular differentiation, and intercellular communication. CTGF belongs to the CCN family of extracellular regulatory proteins and functions as an important mediator between cells and their surrounding microenvironment. Through interactions with growth factors, integrins, extracellular matrix proteins, and cell surface receptors, CTGF coordinates biological processes involved in tissue development, maintenance, repair, and disease progression.

Connective Tissue Growth Factor is widely expressed in connective tissues and plays an essential role in regulating extracellular matrix production and remodeling. Rather than functioning as a classical growth factor, CTGF acts as a multifunctional signaling modulator that integrates extracellular cues and influences cellular responses including adhesion, migration, proliferation, differentiation, and matrix deposition. These diverse activities make CTGF a central regulator of tissue architecture and connective tissue homeostasis. Because extracellular matrix remodeling is fundamental to both normal physiology and disease, CTGF has become a major target in developmental biology, regenerative medicine, and translational research.

One of the most extensively studied functions of CTGF is its involvement in fibrosis and tissue repair. CTGF expression is frequently induced downstream of TGF-beta signaling and contributes to fibroblast activation, collagen synthesis, and extracellular matrix accumulation. Increased CTGF expression has been reported in fibrotic diseases affecting the lung, liver, kidney, heart, and skin. As a result, CTGF is widely investigated as a biomarker and regulatory factor in studies of pathological tissue remodeling and wound healing. Its ability to influence matrix composition and cellular behavior places CTGF at the center of many tissue repair processes.

CTGF is also involved in embryonic development, angiogenesis, skeletal formation, organogenesis, and cancer progression. During development, CTGF contributes to cartilage formation, bone growth, vascular remodeling, and connective tissue maturation. In cancer, altered CTGF expression has been associated with tumor-stroma interactions, extracellular matrix remodeling, angiogenesis, invasion, and metastatic potential. These functions highlight the broad biological significance of CTGF in processes that require dynamic regulation of the extracellular environment and cellular communication networks.

At NSJ Bioreagents, we provide highly validated antibodies for extracellular matrix biology, fibrosis research, developmental biology, tissue remodeling, and cancer research applications. CTGF Antibody / Extracellular Matrix Remodeling Antibody is useful for investigations of connective tissue growth factor signaling, extracellular matrix regulation, wound healing, fibrosis, angiogenesis, tumor microenvironment biology, and developmental pathways. Continued study of CTGF is expanding our understanding of how extracellular communication networks regulate tissue structure, regeneration, and disease progression.

CTGF Antibody is widely used to investigate extracellular matrix remodeling, cellular signaling, tissue repair, and tumor microenvironment biology, making it a valuable target within our Cell Biology Antibody collection.

Application Notes

Optimal dilution of the CTGF Antibody / Extracellular Matrix Remodeling Antibody should be determined by the researcher.

Immunogen

Amino acids 58-349 of human CTGF were used as the immunogen for the CTGF antibody.

Storage

After reconstitution, the CTGF antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

CTGF Antibody, Connective Tissue Growth Factor Antibody, CCN2 Antibody, Cellular Communication Network Factor 2 Antibody, CCN Family Member 2 Antibody, IGFBP8 Antibody

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