10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

COMP Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6906C

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P49747
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	82860
Antigen Region	314-343

Additional Information

Gene ID	1311
Other Names	Cartilage oligomeric matrix protein, COMP, Thrombospondin-5, TSP5, COMP
Target/Specificity	This COMP antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 314-343 amino acids from the Central region of human COMP.
Dilution	WB~~1:2000 IHC-P~~1:100~500 FC~~1:25 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	COMP Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	COMP (HGNC:2227)
Function	Plays a role in the structural integrity of cartilage via its interaction with other extracellular matrix proteins such as the collagens and fibronectin. Can mediate the interaction of chondrocytes with the cartilage extracellular matrix through interaction with cell surface integrin receptors (PubMed:16051604,

PubMed:16542502). Could play a role in the pathogenesis of osteoarthritis (PubMed:16542502). Potent suppressor of apoptosis in both primary chondrocytes and transformed cells. Suppresses apoptosis by blocking the activation of caspase-3 and by inducing the IAP family of survival proteins (BIRC3, BIRC2, BIRC5 and XIAP) (PubMed:17993464). Essential for maintaining a vascular smooth muscle cells (VSMCs) contractile/differentiated phenotype under physiological and pathological stimuli. Maintains this phenotype of VSMCs by interacting with ITGA7 (By similarity).

Cellular Location Secreted, extracellular space, extracellular matrix

Tissue Location Abundantly expressed in the chondrocyte extracellular matrix, and is also found in bone, tendon, ligament and synovium and blood vessels. Increased amounts are produced during late stages of osteoarthritis in the area adjacent to the main defect

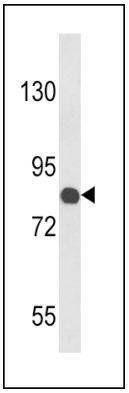
Background

COMP is a noncollagenous extracellular matrix (ECM) protein. It consists of five identical glycoprotein subunits, each with EGF-like and calcium-binding (thrombospondin-like) domains. Oligomerization results from formation of a five-stranded coiled coil and disulfides. Binding to other ECM proteins such as collagen appears to depend on divalent cations.

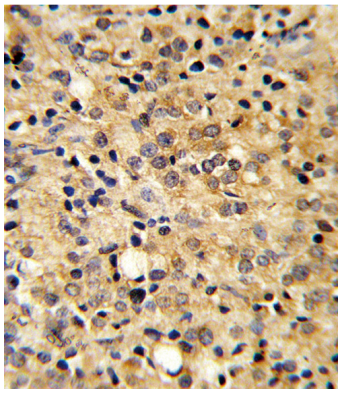
References

Kim,H.J., et.al., Eur. J. Appl. Physiol. 105 (5), 765-770 (2009)

Images

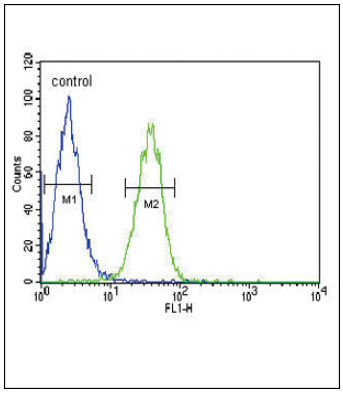


Western blot analysis of COMP Antibody (Center) (Cat. #AP6906c) in Jurkat cell line lysates (35ug/lane). COMP (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human prostate carcinoma reacted with COMP Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

COMP Antibody (Center) (Cat. #AP6906c) flow cytometric analysis of Jurkat cells (right histogram) compared to a



negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.