10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.622.0609

COMP Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP6906C

Specification

COMP Antibody (Center) - Product Information

Application	**WB, IHC-P, FC,E**
Primary Accession	P49747
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit Ig**
Antigen Region	**314-343**

COMP Antibody (Center) - Additional Information

Gene ID 1311

Other Names
Cartilage oligomeric matrix protein, COMP, Thrombospondin-5, TSP5, COMP

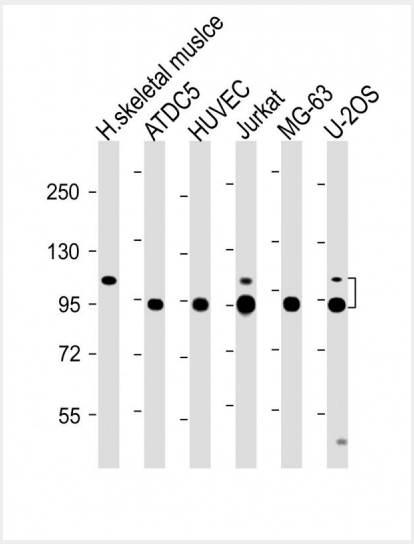
Target/Specificity
This COMP antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 314-343 amino acids from the Central region of human COMP.

Dilution
WB~~1:2000
IHC-P~~1:10~50
FC~~1:25

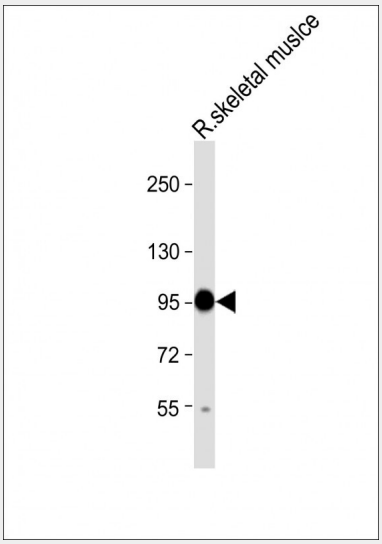
Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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.



All lanes : Anti-COMP Antibody (Center) at 1:2000 dilution Lane 1: Human skeletal muslce lysate Lane 2: ATDC5 whole cell lysate Lane 3: HUVEC whole cell lysate Lane 4: Jurkat whole cell lysate Lane 5: MG-63 whole cell lysate Lane 6: U-2OS whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 83, 77 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



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COMP Antibody (Center) - Protein Information

Name COMP

Function
May play 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. Could play a role in the pathogenesis of osteoarthritis. 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). 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

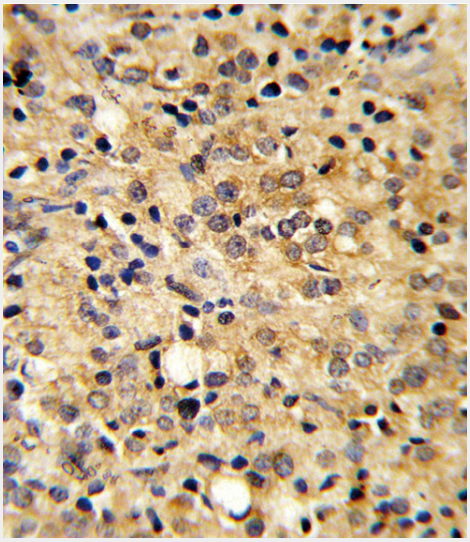
Tissue Location
Abundantly expressed in the chondrocyte extracellular matrix, and is also found in bone, tendon, ligament and synovium and blood vessels. Increased amounts are produced during late stages of osteoarthritis in the area adjacent to the main defect

COMP Antibody (Center) - Protocols

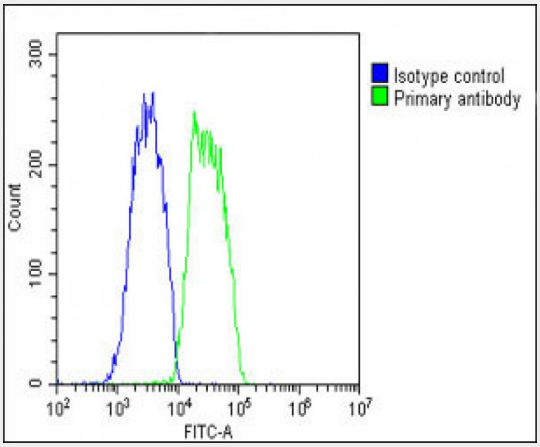
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-COMP Antibody (Center) at 1:2000 dilution + Rat skeletal muslce lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 83 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

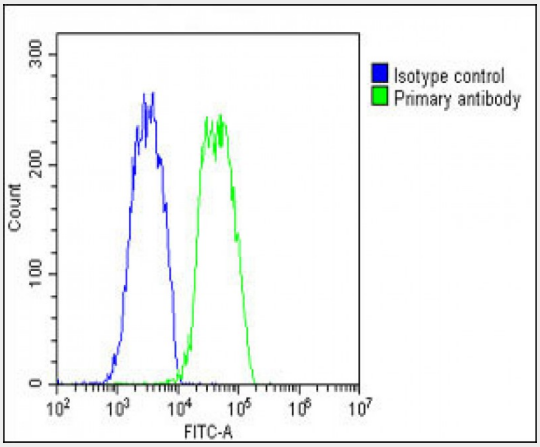


Formalin-fixed and paraffin-embedded human prostate carcinoma reacted with COMP Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Overlay histogram showing HepG2 cells stained with AP6906C(green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP6906C, 1:25

dilution) for 60 min at 37ºC. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OH191631) at 1/200 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.



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COMP Antibody (Center) - 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.

COMP Antibody (Center) - References

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