



MONOCLONAL ANTIBODY

For research use only. Not for clinical diagnosis

Catalog No. PRPG-CP-M01

Anti- COMP (484D1)

[Cartilage Oligomeric Matrix Protein]

BACKGROUND

COMP - Cartilage oligomeric matrix protein - is a prominent multidomain glycoprotein of cartilage, accounting for up to 1% of the wet weight of articular tissues and having an approximate Mr of 97 kDa. COMP may also be found in tendon, bone (i.e. osteoblasts), ligament, certain smooth muscles and synovium. In the ECM COMP is present in a pentameric, disulfide-bonded complex of an Mr of about 550 kDa.. *

Product type	Primary antibodies
Immunogen	Purified COMP (human articular cartilage)
Rased in	Rat
Myeloma	-
Clone number	484D1
Isotype	IgG1
Host	-
Source	Hybridoma cell culture
Purification	-
Form	Liquid
Storage buffer	Supernatant supplemented with 0.05% NaN ₃
Concentration	ND
Volume	2 mL
Label	Unlabeled
Specificity	COMP (Cartilage Oligomeric Matrix Protein)
Cross reactivity	Human, Bovine Other species have not been tested.
Storage	Store at 4°C for short-term storage and -20°C for prolonged storage Aliquot to avoid cycles of freeze / thaw.
Other	Data Link : UniProtKB/Swiss-Prot P49747 (COMP_HUMAN)

Application notes	WB, IHC, ELISA
Recommended dilutions	<ul style="list-style-type: none">Western blotting, 1/20 - 1/70 >2,000 kDa in SDS-agarose (0.5%) gel electrophoresis under reducing conditions >400 kDa after SDS-PAGE under non-reducing conditionsImmunohistochemistry, 1/20 - 1/75 (on frozen tissue sections) MAb 484D1 stains weakly inter-territorial layers and more strongly territorial layers of articular cartilage, ECM of other cartilage types, osteoblasts, synovium, ligament, tendon and certain smooth muscle cells. It shows strongly altered staining patterns in degenerating cartilage (e.g. osteoarthritis and rheumatoid arthritis)ELISA, 1/10 - 1/50 <p>Other applications have not been tested. Optimal dilutions/concentrations should be determined by the end user.</p>

References	<ol style="list-style-type: none">Di Cesare, <i>et.al.</i>, 2000. Expression of cartilage oligomeric matrix protein (COMP) by embryonic and adult osteoblasts. <i>J. Orthopaed. Res.</i> 18, 713-720.Di Cesare, <i>et. Al.</i>, 2002. Matrix-matrix interactions of cartilage oligomeric matrix protein and fibronectin. <i>Matrix Biol.</i> 21, 461-465
-------------------	---

ANTIBODY CHARACTERIZATION

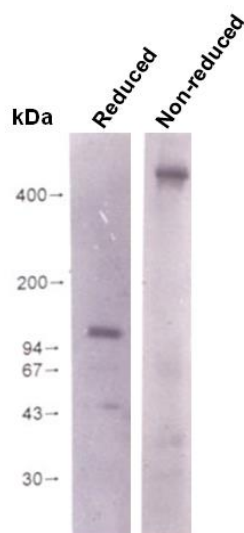


Fig.1 Western blotting of purified human COMP after SDS-PAGE on 7% gels.

RELATED PRODUCTS:

Product Name	Maker	Cat#
Anti Aggrecan (6F4) Monoclonal Antibody	CAC	PRPG-AG-M01
Anti Aggrecan (5D3) Monoclonal Antibody	CAC	PRPG-AG-M02
Anti Aggrecan (5G2) Monoclonal Antibody	CAC	PRPG-AG-M03
Anti Aggrecan (7B7) Monoclonal Antibody	CAC	PRPG-AG-M04
Anti Versican/CSPG2 (5C12) Monoclonal Antibody	CAC	PRPG-VS-M01
Anti Versican/CSPG2 (4C5) Monoclonal Antibody	CAC	PRPG-VS-M02
Anti NG2 / CSPG4 (2164H5) Monoclonal Antibody	CAC	PRPG-NG-M01
Anti COMP (484D1) Monoclonal Antibody	CAC	PRPG-CP-M01
Anti COMP (490D11) Monoclonal Antibody	CAC	PRPG-CP-M02
Anti Keratan sulfate (373E1) Monoclonal Antibody	CAC	PRPG-KS-M01
Anti Decorin (889C7) Monoclonal Antibody	CAC	PRPG-DC-M01
Anti Fibromodulin (636B12) Monoclonal Antibody	CAC	PRPG-FBM-M01
Anti Biglycan (905A7) Monoclonal Antibody	CAC	PRPG-BG-M01
Anti XTP1 (2191H1) Monoclonal Antibody	CAC	PRPG-XTP-M01
Anti SDP35 (2200D12) Monoclonal Antibody	CAC	PRPG-SDP-M01
Anti Laminin α 4 (652C4) Monoclonal Antibody	CAC	PRPG-LA4-M01
Anti Collagen 12 (378D5) Monoclonal Antibody	CAC	PRPG-CO12-M01

*** < BACKGROUND : COMP [Cartilage Oligomeric Matrix Protein] >**

COMP - Cartilage oligomeric matrix protein – is a prominent multidomain glycoprotein of cartilage, accounting for up to 1% of the wet weight of articular tissues and having an approximate *Mr* of 97 kDa. COMP may also be found in tendon, bone (i.e. osteoblasts), ligament, certain smooth muscles and synovium. In the ECM COMP is present in a pentameric, disulfide-bonded complex of an *Mr* of about 550 kDa. Although the function of COMP is not completely elucidated, it appears to mediate chondrocyte attachment via integrins and to stabilize the articular cartilage ECM via specific cation-dependent interactions with collagen types II and IX, aggrecan, fibronectin, and ECM protein 1. In addition, mutations in the human COMP gene have been linked to the development of pseudoachondroplasia and multiple epiphyseal dysplasia, which are autosomal-dominant forms of short-limb dwarfism. In chondrocytes of these patients, COMP remains frequently entrapped in intracellular vesicles. COMP is a substrate for a variety of ECM degrading enzymes, including MMP-1, MMP-13, MMP-19, MMP20 and ADAMTS-4, -7 and -12. Fragments of COMP have been detected in the diseased cartilage, synovial fluid, and serum of patients with knee injuries, post-traumatic and primary osteoarthritis and rheumatoid arthritis and have proposed to be diagnostic/prognostic of degenerative cartilage diseases.

For research use only. Not for clinical diagnosis.



COSMO BIO Co., LTD.

[JAPAN]

TOYO EKIMAE BLDG. 2-20, TOYO 2-CHOME,
KOTO-KU. TOKYO 135-0016, JAPAN
Phone: +81-3-5632-9610
FAX: +81-3-5632-9619
URL: <https://www.cosmobio.co.jp/>



COSMO BIO USA

[Outside Japan]

2792 Loker Ave West, Suite 101
Carlsbad, CA 92010, USA
email: info@cosmobioussa.com
Phone/FAX: (+1) 760-431-4600
URL: www.cosmobioussa.com