

Product datasheet

Recombinant Human COMP/Cartilage oligomeric matrix protein ab104358

[2 References](#) [2 Images](#)

Description

Product name	Recombinant Human COMP/Cartilage oligomeric matrix protein
Purity	> 90 % SDS-PAGE. ab104358 is filtered (0.4 µm). Purity as determined by densitometric image analysis: >90%
Expression system	HEK 293 cells
Accession	<u>P49747</u>
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human

Sequence

HVDYKDDDDKPAGQQQSPLGSDLGPQMLRELQETNAAL
QDVRE LLRQQ
VREITFLKNTVMECDACGMQQSVRTGLPSVRPLLHCAPG
FCFPGV ACI
QTESGARGPCPAGFTGNGSHCTDVNECNAHPCFPRVR
CINTSPGFR C
EACPPGYSGPTHQGVGLAFKANKQVCTDINECETGQHN
CVPNSVCINT
RGSFQCGPCQPGFVGDQASGCQRRARFCPDGSPSEC
HEHADCVLERDG S
RSCVCAVGWAGNGILCGRD TDLDGFPDEKLRCPERQCR
KDNCVTVPN SGQ
EDVDRDGIGDACPDADGDGVPNEKDNCP LVRNPDQRN
TDEDKWG DACDN
CRSQKNDDQKDTDQDGRGDACDDDDIDGDRIRNQADNCP
RVPNS DQKSDSG
DGIGDACDNCPQKSNPDQADVDHDFVGDACDSDQDQD
GDGH QDSRDNCPT
VPNSAQEDSDHDGQGDACDDDDNDGVPDSRDNCRLV
PN PGQEDADRDGV
GDVCQDDFDADKVVDKIDVCPENAEVTLTDFRAFQTV
VLDPEGDAQIDPN
WVVLNQGREIVQTMNSDPGLAVGYTAFNGVDFEGT
FHVNTVTDDDYAGFI

FGYQDSSSFYVVMWKQMEQTYWQANPFRAVAEP
GIQLKAVKSSTGPGEQL
RNALWHTGDTESQVRLWLDPRNVGWKDKKS
YRWFLQHRPQVGYRVRFY
EGPELVADSNVLDTTMRGGRLGVFCFSQ
ENIWANLRYRCNDTIPEDYE THQLRQA

Predicted molecular weight	82 kDa including tags
Amino acids	21 to 757
Tags	DDDDK tag N-Terminus

Specifications

Our **Abpromise guarantee** covers the use of **ab104358** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE Western blot
Form	Lyophilized
Additional notes	Product is not sterile! Please filter the product by an appropriate sterile filter before using it in the cell culture. Aliquot reconstituted protein to avoid repeated freezing/thawing cycles and store at -80°C for long term storage. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after one week at 4°C. This product was previously labelled as COMP

Preparation and Storage

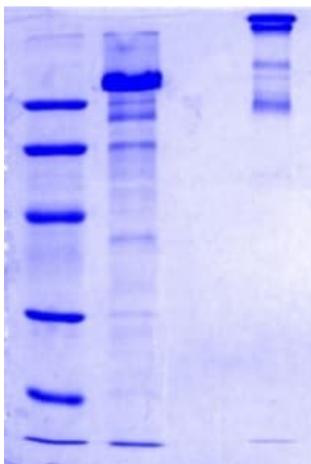
Stability and Storage	Store at -20°C long term. Avoid freeze / thaw cycle. Please see notes section. Constituents: 0.242% Tris, 0.29% Sodium chloride
Reconstitution	Add deionized water to prepare a working stock solution of approximately 0.5 mg/ml and let the lyophilized pellet dissolve completely.

General Info

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.
Tissue specificity	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.

Involvement in disease	Defects in COMP are the cause of multiple epiphyseal dysplasia type 1 (EDM1) [MIM:132400]. EDM is a generalized skeletal dysplasia associated with significant morbidity. Joint pain, joint deformity, waddling gait, and short stature are the main clinical signs and symptoms. EDM is broadly categorized into the more severe Fairbank and the milder Ribbing types. Defects in COMP are the cause of pseudoachondroplasia (PSACH) [MIM:177170]. PSAC is a dominantly inherited chondrodysplasia characterized by short stature and early-onset osteoarthritis. PSACH is more severe than EDM1 and is recognized in early childhood.
Sequence similarities	Belongs to the thrombospondin family. Contains 4 EGF-like domains. Contains 1 TSP C-terminal (TSPC) domain. Contains 8 TSP type-3 repeats.
Developmental stage	Present during the earliest stages of limb maturation and is later found in regions where the joints develop.
Domain	The cell attachment motif mediates the attachment to chondrocytes. It mediates the induction of both the IAP family of survival proteins and the antiapoptotic response. The TSP C-terminal domain mediates interaction with FN1 and ACAN.
Cellular localization	Secreted > extracellular space > extracellular matrix.

Images



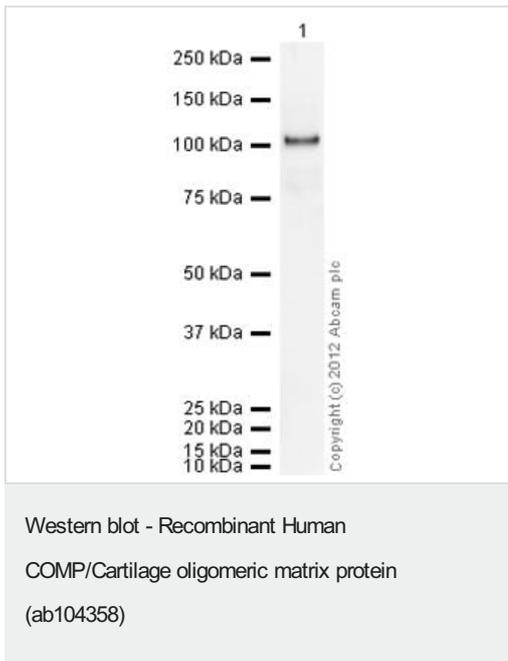
14% SDS-PAGE showing ab104358 at approximately 82.4kDa:

Lane 1: M.W. marker – 21, 31, 45, 66, 97 kDa.

Lane 2: reduced and boiled sample, 5µg/lane.

Lane 3: non-reduced and non-boiled sample, 5µg/lane.

SDS-PAGE - Recombinant Human COMP/Cartilage oligomeric matrix protein (ab104358)



Anti-COMP/Cartilage oligomeric matrix protein antibody (**ab42225**) at 1/1000 dilution + Recombinant Human COMP/Cartilage oligomeric matrix protein (ab104358) at 0.01 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (**ab97080**) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Exposure time: 2 minutes

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors