# abcam

# Product datasheet

# Recombinant Human COMP/Cartilage oligomeric matrix protein ab104358

2 References 2 图像

描述

产品名称 重组人COMP/Cartilage oligomeric matrix蛋白

纯**度** > 90 % SDS-PAGE.

ab104358 is filtered (0.4  $\mu$ m). Purity as determined by densitometric image analysis: >90%

表达系统 HEK 293 cells

Accession P49747

**蛋白长度** Full length protein

无动物成分 No

性质 Recombinant

种属 Human

序列 HVDYKDDDDKPAGQGQSPLGSDLGPQMLRELQETNAALQDV

RE LLRQQ

 ${\tt VREITFLKNTVMECDACGMQQSVRTGLPSVRPLLHCAPGFCF}$ 

PGV ACI

 ${\tt QTESGARCGPCPAGFTGNGSHCTDVNECNAHPCFPRVRCINT}$ 

SPGFR C

EACPPGYSGPTHQGVGLAFAKANKQVCTDINECETGQHNCVP

**NSVCINT** 

RGSFQCGPCQPGFVGDQASGCQRRAQRFCPDGSPSECHEHAD

CVLERDG S

RSCVCAVGWAGNGILCGRDTDLDGFPDEKLRCPERQCRKDNC

VTVPN SGQ

EDVDRDGIGDACDPDADGDGVPNEKDNCPLVRNPDQRNTDED

KWG DACDN

CRSQKNDDQKDTDQDGRGDACDDDIDGDRIRNQADNCPRVPN

S DQKDSDG

DGIGDACDNCPQKSNPDQADVDHDFVGDACDSDQDQDGDGH

**QDSRDNCPT** 

 ${\tt VPNSAQEDSDHDGQGDACDDDDDDDGVPDSRDNCRLVPN}$ 

**PGQEDADRDGV** 

GDVCQDDFDADKVVDKIDVCPENAEVTLTDFRAFQTV

**VLDPEGDAQIDPN** 

WVVLNQGREIVQTMNSDPGLAVGYTAFNGVDFEGT

FHVNTVTDDDYAGFI

1

FGYQDSSSFYVVMWKQMEQTYWQANPFRAVAEP GIQLKAVKSSTGPGEQL RNALWHTGDTESQVRLLWKDPRNVGWKDKKS YRWFLQHRPQVGYIRVRFY EGPELVADSNVVLDTTMRGGRLGVFCFSQ ENIIWANLRYRCNDTIPEDYE THQLRQA

预**测分子量** 82 kDa including tags

**氨基酸** 21 to 757

标签 DDDDK tag N-Terminus

### 技术指标

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.

应**用** SDS-PAGE

Western blot

形式 Lyophilized

补充说明 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

### 制备和贮存

稳定性和存储 Store at -20°C long term. Avoid freeze / thaw cycle. Please see notes section.

Constituents: 0.242% Tris, 0.29% Sodium chloride

复溶 Add deionized water to prepare a working stock solution of approximately 0.5 mg/ml and let the

lyophilized pellet dissolve completely.

## 常规信息

功能 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.

组织特异性 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.

# 疾病相关 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 osteoarthrosis. PSACH is more severe than EDM1 and is recognized in early childhood.

序列相似性 Belongs to the thrombospondin family.

Contains 4 EGF-like domains.

Contains 1 TSP C-terminal (TSPC) domain.

Contains 8 TSP type-3 repeats.

发展阶段 Present during the earliest stages of limb maturation and is later found in regions where the joints

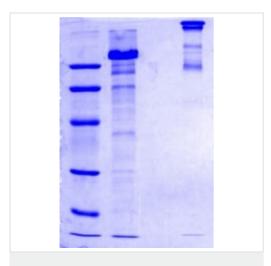
develop.

结**构域** 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.

细胞定位 Secreted > extracellular space > extracellular matrix.

# 图片



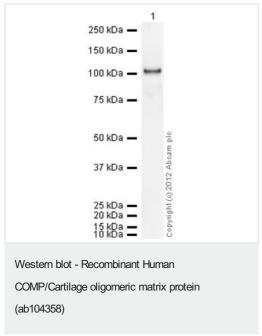
SDS-PAGE - Recombinant Human COMP/Cartilage oligomeric matrix protein (ab104358)

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,  $5\mu\text{g/lane}.$ 



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"

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