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Product datasheet

Anti-COMP/Cartilage oligomeric matrix protein antibody [MA37C94 (HC484D1)] ab11056

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Overview

Product name	Anti-COMP/Cartilage oligomeric matrix protein antibody [MA37C94 (HC484D1)]
Description	Rat monoclonal [MA37C94 (HC484D1)] to COMP/Cartilage oligomeric matrix protein
Host species	Rat
Specificity	Ab11056 recognises human COMP/Cartilage oligomeric matrix protein.
Tested applications	**Suitable for:** ELISA, IHC-Fr, IHC-P, IP, WB
Species reactivity	**Reacts with:** Human
Immunogen	Full length native protein (purified) corresponding to Human COMP/Cartilage oligomeric matrix protein.
Epitope	The antibody recognises an epitope located in the central portion of the molecule. Unfortunately, we do not have information regarding the exact region.
General notes	Storage in frost free freezers is not recommended. Should this product contain a precipitate we recommend microcentrifugation before use. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.09% Sodium azide Constituents: Tissue culture supernatant, PBS
Purity	Protein G purified

Clonality	Monoclonal
Clone number	MA37C94 (HC484D1)
Myeloma	NS1
Isotype	IgG2a

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab11056 in the following tested applications.

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

Application	Abreviews	Notes
ELISA		Use at an assay dependent concentration.
IHC-Fr		Use at an assay dependent concentration.
IHC-P	★★★★☆ (2)	Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration.

Target

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 osteoarthrosis. 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.