abcam

Product datasheet

Biotin Anti-Collagen I antibody ab6577

9 References 画像数 3

製品の概要

製品名	Biotin Anti-Collagen I antibody
製品の詳細	Biotin Rabbit polyclonal to Collagen I
由来種	Rabbit
標識	Biotin
特異性	Negligible cross-reactivity with Type II, III, IV, V or VI collagens. Non-specific cross reaction of anti-collagen antibodies with other human serum proteins or non-collagen extracellular matrix proteins is negligible.
アプリケーション	**適用あり:** IHC-P, Flow Cyt (Intra)
種交差性	**交差種:** Human **交差が予測される動物種:** Mammals
免疫原	Full length native protein (purified) corresponding to Collagen I. Collagen Type I from human and bovine placenta.
ポジティブ・コントロール	Flow Cyt (Intra): Primary adult human dermal fibroblast cells.
特記事項	At least 11 genetically distinct gene products are collectively referred to as 'collagen types' or other proteins and proteoglycans of the extracellular matrix. In humans, collagens are composed of about 20 unique protein chains which under go various types of post-translational modifications and are ultimately assembled into a triple helix. This results in great diversity between collagen types. Collagens are highly conserved throughout evolution and are characterized by an uninterrupted "Glycine-X-Y" triplet repeat that is a necessary part of the triple helical structure. For these reasons it is often extremely difficult to generate antibodies with specificities to collagens. The development of type specific antibodies is dependent on NON-DENATURED three-dimensional epitopes. This preparation results in a native conformation of the protein. This antibody is well suited to detect extracellular matrix proteins in normal as well as disease state tissues. Disruption of tissue organization is the hallmark of neoplasia. Malignant lesions can be distinguished from benign by examining the breakdown of basement membranes and loss of 3-dimensional architecture. Malignant cells are presumed to use matrix metalloproteases to degrade barriers created by the extracellular matrix which then allows metastasis to occur. Collagenases, stomelysins and gelatinases can collectively degrade all of the various components of the extracellular matrix, including fibrillar and non-fibrillar collagens and basement membrane glycoproteins. 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

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C or -80°C. Avoid freeze / thaw cycle.
バッファー	Preservative: 0.01% Sodium azide Constituents: 0.44% Sodium chloride, 1% BSA, 0.15% EDTA, 4.8% Sodium borate
精製度	Immunogen affinity purified
特記事項（精製）	Immunoaffinity chromatography using immobilized antigens followed by extensive cross-adsorption against other collagens, human serum proteins and non-collagen extracellular matrix proteins to remove any unwanted specificities.
一次抗体 備考	This antibody is well suited to detect extracellular matrix proteins in normal as well as disease state tissues. Disruption of tissue organization is the hallmark of neoplasia. Malignant lesions can be distinguished from benign by examining the breakdown of basement membranes and loss of 3-dimensional architecture. Malignant cells are presumed to use matrix metalloproteases to degrade barriers created by the extracellular matrix which then allows metastasis to occur. Collagenases, stomelysins and gelatinases can collectively degrade all of the various components of the extracellular matrix, including fibrillar and non-fibrillar collagens and basement membrane glycoproteins.
ポリ/モノ	ポリクローナル
アイソタイプ	IgG

アプリケーション

The Abpromise guarantee **Abpromise保証は、** 次のテスト済みアプリケーションにおけるab6577の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
IHC-P		1/50 - 1/200.
Flow Cyt (Intra)		Use a concentration of 5 µg/ml.

ターゲット情報

機能	Type I collagen is a member of group I collagen (fibrillar forming collagen).
組織特異性	Forms the fibrils of tendon, ligaments and bones. In bones the fibrils are mineralized with calcium hydroxyapatite.
関連疾患	Defects in COL1A1 are the cause of Caffey disease (CAFFD) [MIM:114000]; also known as

infantile cortical hyperostosis. Caffey disease is characterized by an infantile episode of massive subperiosteal new bone formation that typically involves the diaphyses of the long bones, mandible, and clavicles. The involved bones may also appear inflamed, with painful swelling and systemic fever often accompanying the illness. The bone changes usually begin before 5 months of age and resolve before 2 years of age.
Defects in COL1A1 are a cause of Ehlers-Danlos syndrome type 1 (EDS1) [MIM:130000]; also known as Ehlers-Danlos syndrome gravis. EDS is a connective tissue disorder characterized by hyperextensible skin, atrophic cutaneous scars due to tissue fragility and joint hyperlaxity. EDS1 is the severe form of classic Ehlers-Danlos syndrome.
Defects in COL1A1 are the cause of Ehlers-Danlos syndrome type 7A (EDS7A) [MIM:130060]; also known as autosomal dominant Ehlers-Danlos syndrome type VII. EDS is a connective tissue disorder characterized by hyperextensible skin, atrophic cutaneous scars due to tissue fragility and joint hyperlaxity. EDS7A is marked by bilateral congenital hip dislocation, hyperlaxity of the joints, and recurrent partial dislocations.
Defects in COL1A1 are a cause of osteogenesis imperfecta type 1 (OI1) [MIM:166200]. A dominantly inherited connective tissue disorder characterized by bone fragility and blue sclerae. Osteogenesis imperfecta type 1 is non-deforming with normal height or mild short stature, and no dentinogenesis imperfecta.
Defects in COL1A1 are a cause of osteogenesis imperfecta type 2A (OI2A) [MIM:166210]; also known as osteogenesis imperfecta congenita. A connective tissue disorder characterized by bone fragility, with many perinatal fractures, severe bowing of long bones, undermineralization, and death in the perinatal period due to respiratory insufficiency.
Defects in COL1A1 are a cause of osteogenesis imperfecta type 3 (OI3) [MIM:259420]. A connective tissue disorder characterized by progressively deforming bones, very short stature, a triangular face, severe scoliosis, grayish sclera, and dentinogenesis imperfecta.
Defects in COL1A1 are a cause of osteogenesis imperfecta type 4 (OI4) [MIM:166220]; also known as osteogenesis imperfecta with normal sclerae. A connective tissue disorder characterized by moderately short stature, mild to moderate scoliosis, grayish or white sclera and dentinogenesis imperfecta.
Genetic variations in COL1A1 are a cause of susceptibility to osteoporosis (OSTEOP) [MIM:166710]; also known as involutional or senile osteoporosis or postmenopausal osteoporosis. Osteoporosis is characterized by reduced bone mass, disruption of bone microarchitecture without alteration in the composition of bone. Osteoporotic bones are more at risk of fracture.
Note=A chromosomal aberration involving COL1A1 is found in dermatofibrosarcoma protuberans. Translocation t(17;22)(q22;q13) with PDGF.

配列類似性

Belongs to the fibrillar collagen family.
Contains 1 fibrillar collagen NC1 domain.
Contains 1 VWFC domain.

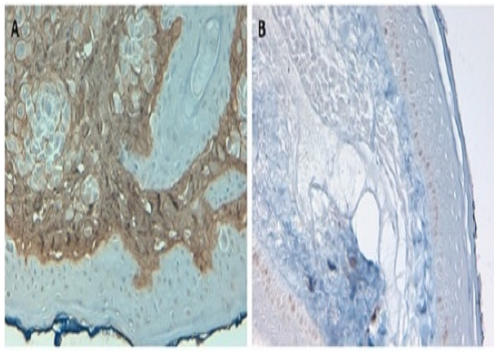
翻訳後修飾

Proline residues at the third position of the tripeptide repeating unit (G-X-Y) are hydroxylated in some or all of the chains. Proline residues at the second position of the tripeptide repeating unit (G-X-Y) are hydroxylated in some of the chains.
O-linked glycan consists of a Glc-Gal disaccharide bound to the oxygen atom of a post-translationally added hydroxyl group.

細胞内局在

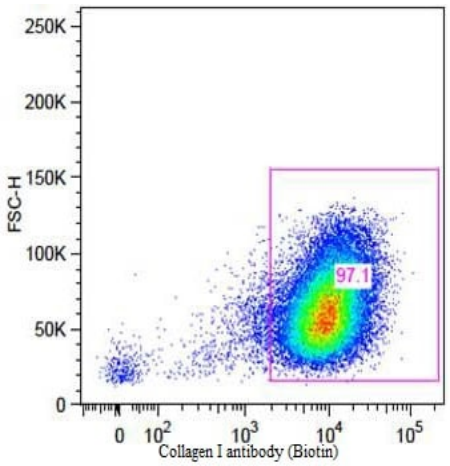
Secreted > extracellular space > extracellular matrix.

画像



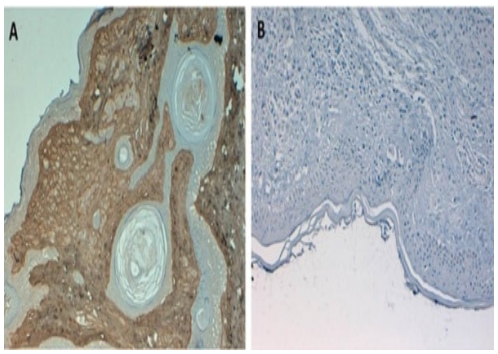
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Biotin Anti-Collagen I antibody (ab6577)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human skin tissue sections at pH9 labeling Collagen I with ab6577 10 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1/10,000 for 45 min at RT. Localization: Collagen Type I is secreted in the extracellular matrix. Staining: Collagen Type I as precipitated brown signal (A) with hematoxylin purple nuclear counterstain. With corresponding negative conrol (B).



Flow Cytometry (Intracellular) - Biotin Anti-Collagen I antibody (ab6577)

Flow Cytometry analysis of primary adult human dermal fibroblast cells labeling Collagen I with ab6577 5µg/mL for 45 min at 4°C. Secondary antibody: Rabbit Streptavidin, R-PE antibody at 1/500 for 15 min at RT.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Biotin Anti-Collagen I antibody (ab6577)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human skin tissue sections at pH6 labeling Collagen I with ab6577 10 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1/10,000 for 45 min at RT. Localization: Collagen Type I is secreted in the extracellular matrix. Staining: Collagen Type I as precipitated brown signal (A) with hematoxylin purple nuclear counterstain. With corresponding negative conrol (B).

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