abcam

Product datasheet

Anti-Collagen I antibody ab34710

★★★★★ 90 Abreviews 1659 References 画像数 4

製品の概要

製品名	Anti-Collagen I antibody
製品の詳細	Rabbit polyclonal to Collagen I
由来種	Rabbit
特異性	This product is not recommended for use under denaturing conditions in WB. We would suggest testing it under native conditions. Denaturing and reducing conditions will greatly diminish reactivity and selectivity of this antibody. Abcam does not test ab34710 with endogenous samples in WB. We do recommend to look at the guidelines for blotting large proteins **here**. ab34710 has <5% cross-reactivity with Collagen III Customers have been successful using ab34710 in this application, please see references below (Tillgren V *et al. J Biol Chem* **290**:918-25; 2015). Positive Control: Human stomach, skin and adrenal gland tissue lysates.
アプリケーション	**適用あり:** IHC-P, WB
種交差性	**交差種:** Human
免疫原	Full length native protein (purified) corresponding to Human Collagen I aa 1-1464. Collagen Type I from human and bovine placenta. Database link: **P02452**
ポジティブ・コントロール	WB: human collagen. IHC-P: human stomach mucosa, smooth muscle cells of the human stomach wall and human tubuli and blood vessels.
特記事項	Anti-Collagen I antibody (ab34710) is stable at 4°C as an undiluted liquid. Dilute only prior to immediate use. For extended storage, mix with an equal volume of glycerol, aliquot contents and freeze at -20° C or below. **This collagen antibody was developed using non-denatured 3D epitopes, you must be careful not to denature the collagen protein during your experiment.** **PLEASE READ THESE IMPORTANT PROTOCOL TIPS, click here for the english version or here for the mandarin version.** It is often extremely difficult to generate antibodies with specificities to collagens due to the uninterrupted "Glycine-X-Y" triplet repeat that is a necessary part of the triple helical structure. The development of type specific antibodies is dependent on NON-DENATURED three-dimensional epitopes - this may result in diminished reactivity of some antibodies with denatured collagen or formalin-fixed, paraffin embedded tissues. 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). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle. Please see notes section.
バッファー	Preservative: 0.01% Sodium azide Constituents: 0.8766% Sodium chloride, 0.42% Potassium phosphate
精製度	Immunogen affinity purified
特記事項（精製）	ab34710 has been prepared by 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. Sterile filtered.
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ab34710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	★★★★★ (50)	1/15.
WB	★★★★★ (10)	1/1000 - 1/10000.

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.

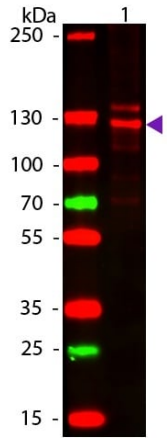
翻訳後修飾

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



Western blot - Anti-Collagen I antibody (ab34710)

Anti-Collagen I antibody (ab34710) at 1/1000 dilution + Native Human Collagen I protein (**ab7533**) at 0.05 µg

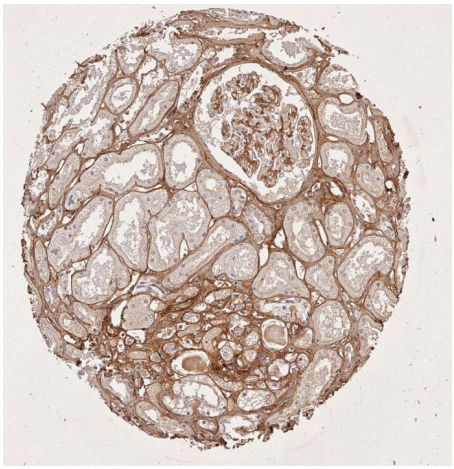
Secondary

DyLight™ 649 anti-rabbit secondary antibody at 1/20000 dilution

DyLight™ 649 anti-rabbit secondary antibody at 1:20,000 for 30 min at RT.

Blocking Buffer for 30 min at room temperature - proprietary protein formulation in TRIS buffered saline at pH 7.6 with thimerosal added as an antimicrobial agent.

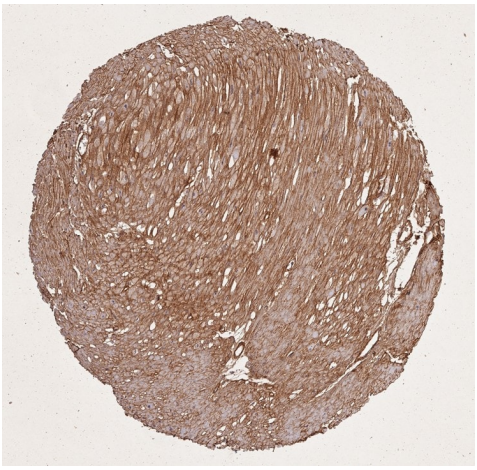
Other Band(s): Collagen Type I splice variants and isoforms.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Collagen I antibody (ab34710)

Immunohistochemical analysis of formalin-fixed paraffin-embedded human tubuli and blood vessels labelling Collagen I with ab34710 at 1/15 for 1 hour at 37 °C followed by a ready to Polymer-HRP, Rabbit/Mouse Detection Kit. Blocking: Peroxidase-Blocking Solution for 10 minutes. Substrate: DAB-Chromogen, Rabbit/Mouse. Staining/Results: Intense collagen I staining of fibres surrounding tubuli and around blood vessels. Counterstained with hematoxylin for 15 seconds.

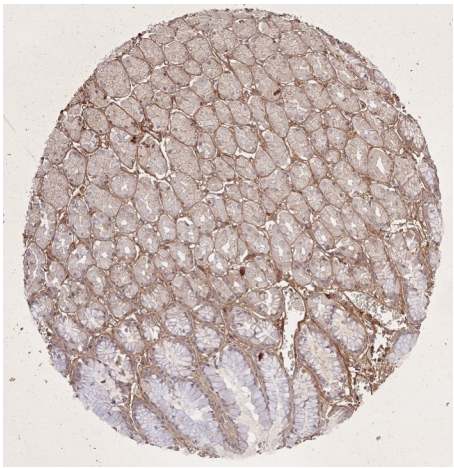
Heat induced epitope retrieval (HIER) using Tris-EDTA-citrate buffer pH 7.8 for 5 minutes.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Collagen I antibody (ab34710)

Immunohistochemical analysis of formalin-fixed paraffin-embedded smooth muscle cells of the human stomach wall labelling Collagen I with ab34710 at 1/15 dilution for 1 hour at 37 °C followed by a ready to use Polymer-HRP, Rabbit/Mouse Detection Kit. Blocking: Peroxidase-Blocking Solution for 10 minutes. Substrate: DAB-Chromogen, Rabbit/Mouse. Staining/Results: smooth muscle cells surrounded by collagen fibers. Counterstained with hematoxylin for 15 seconds.

Heat induced epitope retrieval (HIER) using Tris-EDTA-citrate buffer pH 7.8 for 5 minutes.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Collagen I antibody (ab34710)

Immunohistochemical analysis of formalin-fixed paraffin-embedded human stomach mucosa (TMA) tissue labelling Collagen I with ab34710 at 1/15 dilution for 1 hour at 37 °C followed by a ready to use Polymer-HRP, Rabbit/Mouse Detection Kit. Blocking: Peroxidase-Blocking Solution for 10 minutes. Substrate: DAB-Chromogen, Rabbit/Mouse. Staining/Results: basement membranes and blood vessels. Counterstained with hematoxylin for 15 seconds.

Heat induced epitope retrieval (HIER) using Tris-EDTA-citrate buffer pH 7.8 for 5 minutes.

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