abcam

Product datasheet

Anti-Elastin antibody ab21610

★★★★★ 13 Abreviews 91 References 2 Images

Overview

Product name	Anti-Elastin antibody
Description	Rabbit polyclonal to Elastin
Host species	Rabbit
Specificity	Interacts with tropoelastin and insoluble elastin (there are many shared epitopes between the two forms of the protein).
Tested applications	**Suitable for:** ICC, IHC-P **Unsuitable for:** WB
Species reactivity	**Reacts with:** Mouse
Immunogen	Full length protein corresponding to Elastin. ab21610 was generated to the mature, insoluble form of elastin purified from pig, human, dog, chicken, rat and cow.
General notes	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	Constituents: Whole serum, 50% Glycerol (glycerin, glycerine)
Purity	Whole antiserum
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab21610 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
ICC		Use at an assay dependent concentration.
IHC-P	★★★★★ (8)	Use at an assay dependent concentration.

Application notes Is unsuitable for WB.

Target

Function Major structural protein of tissues such as aorta and nuchal ligament, which must expand rapidly and recover completely. Molecular determinant of the late arterial morphogenesis, stabilizing arterial structure by regulating proliferation and organization of vascular smooth muscle.

Tissue specificity Expressed within the outer myometrial smooth muscle and throughout the arteriolar tree of uterus (at protein level). Also expressed in the large arteries, lung and skin.

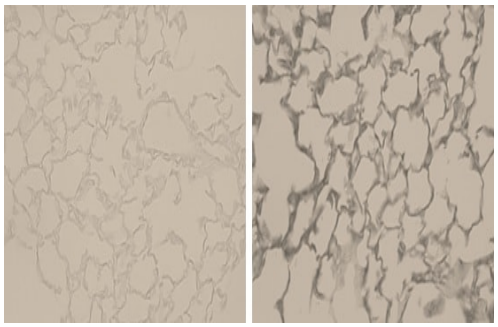
Involvement in disease Defects in ELN are a cause of autosomal dominant cutis laxa (ADCL) [MIM:123700]. Cutis laxa is a rare connective tissue disorder characterized by loose, hyperextensible skin with decreased resilience and elasticity leading to a premature aged appearance. The skin changes are often accompanied by extracutaneous manifestations, including pulmonary emphysema, bladder diverticula, pulmonary artery stenosis and pyloric stenosis.
Defects in ELN are the cause of supravalvular aortic stenosis (SVAS) [MIM:185500]. SVAS is a congenital narrowing of the ascending aorta which can occur sporadically, as an autosomal dominant condition, or as one component of Williams-Beuren syndrome.
Note=ELN is located in the Williams-Beuren syndrome (WBS) critical region. WBS results from a hemizygous deletion of several genes on chromosome 7q11.23, thought to arise as a consequence of unequal crossing over between highly homologous low-copy repeat sequences flanking the deleted region. Haploinsufficiency of ELN may be the cause of certain cardiovascular and musculo-skeletal abnormalities observed in the disease.

Sequence similarities Belongs to the elastin family.

Post-translational modifications Elastin is formed through the cross-linking of its soluble precursor tropoelastin. Cross-linking is initiated through the action of lysyl oxidase on exposed lysines to form allysine. Subsequent spontaneous condensation reactions with other allysine or unmodified lysine residues result in various bi-, tri-, and tetrafunctional cross-links. The most abundant cross-links in mature elastin fibers are lysinonorleucine, allysine aldol, desmosine, and isodesmosine.
Hydroxylation on proline residues within the sequence motif, GXPG, is most likely 4-hydroxy as this fits the requirement for 4-hydroxylation in vertebrates.

Cellular localization Secreted > extracellular space > extracellular matrix. Extracellular matrix of elastic fibers.

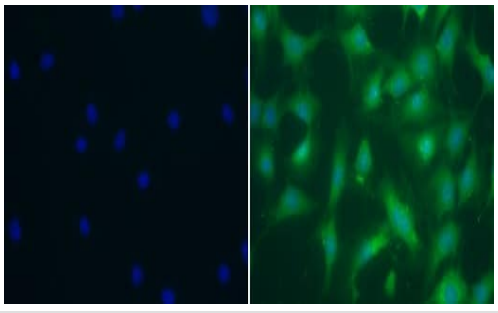
Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Elastin antibody (ab21610)

Immunohistochemical analysis of Bouin's solution fixed (25cm H2O pressure for 90 min) paraffin-embedded wild type mouse lung (12mo, female) tissue labeling Elastin with ab21610 at 1/50 dilution, followed by HRP-conjugated secondary antibody.

Left Panel: No antibody control.



Immunocytochemistry - Anti-Elastin antibody (ab21610)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized NIH-3T3 cells labeling Elastin with ab21610 at 1/200 dilution, followed by a FITC-conjugated secondary antibody. The nuclear counter stain is DAPI (blue).

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