10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Rabbit Anti-Elastin Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP52134

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	P15502
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	68398
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Elastin
Epitope Specificity	681-786/786
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Secreted, extracellular space, extracellular matrix. Note=Extracellular matrix of elastic fibers.
SIMILARITY	Belongs to the elastin family.
SUBUNIT	The polymeric elastin chains are cross-linked together into an extensible 3D network. Forms a ternary complex with BGN and MFAP2. Interacts with MFAP2 via divalent cations (calcium > magnesium > manganese) in a dose-dependent and saturating manner.
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 to be 4-hydroxy as this fits the requirement for 4-hydroxylation in vertebrates.
DISEASE	Defects in ELN are the cause of cutis laxa, autosomal dominant, type 1 (ADCL1) . A connective tissue disorder characterized by loose, hyperextensible skin with decreased resilience and elasticity leading to a premature aged appearance. Face, hands, feet, joints, and torso may be differentially affected. Additional variable clinical features are gastrointestinal diverticula, hernia, and genital prolapse. Rare manifestations are pulmonary artery stenosis, aortic aneurysm, bronchiectasis, and emphysema.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a protein that is one of the two components of elastic fibers. Elastic fibers comprise part of the extracellular matrix and confer elasticity to organs and tissues including the heart, skin, lungs, ligaments, and blood vessels. The encoded protein is rich in hydrophobic amino acids such as glycine and proline, which form mobile hydrophobic regions bounded by crosslinks between lysine residues. Degradation products of the encoded

protein, known as elastin-derived peptides or elastokines, bind the elastin receptor complex and other receptors and stimulate migration and proliferation of monocytes and skin fibroblasts. Elastokines can also contribute to cancer progression. Deletions and mutations in this gene are associated with supravalvular aortic stenosis (SVAS) and autosomal dominant cutis laxa. [provided by RefSeq, Aug 2017].

Additional Information

Gene ID	2006
Other Names	WS; WBS; SVAS; Elastin; Tropoelastin; ELN
Target/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.
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1 g /test,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	ELN
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 (By similarity).
Cellular Location	Secreted, extracellular space, extracellular matrix. Note=Extracellular matrix of elastic fibers.
Tissue Location	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

Background

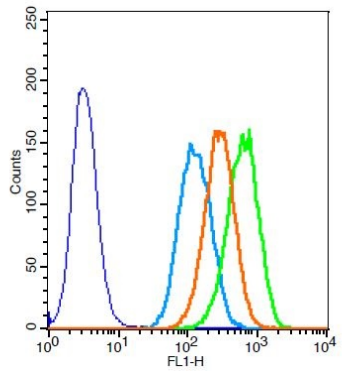
Major structural protein of tissues such as aorta and nuchal ligament, which must expand rapidly and recover completely. Molecular determinant of the late arterial morphogenesis, stabilizing arterial structure by regulating proliferation and organization of vascular smooth muscle (By similarity).

References

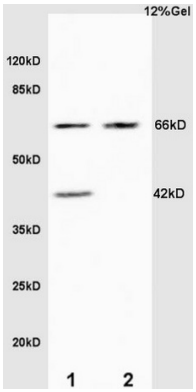
Indik Z.,et al.Proc. Natl. Acad. Sci. U.S.A. 84:5680-5684(1987).
Fazio M.J.,et al.J. Invest. Dermatol. 91:458-464(1988).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Bechtel S.,et al.BMC Genomics 8:399-399(2007).

Suzuki Y.,et al.Submitted (JUL-2006) to the EMBL/GenBank/DDBJ databases.

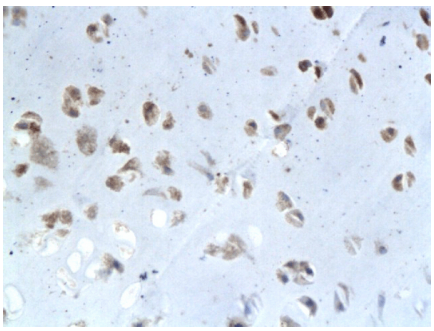
Images



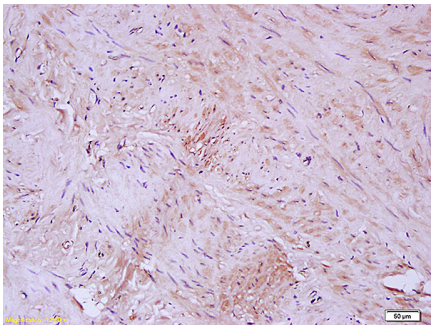
Human A549 cells probed with Rabbit Anti-Elastin Polyclonal Antibody (AP52134) at 1:50 for 40 minutes followed by incubation with Goat Anti-Rabbit IgG FITC conjugated secondary antibody at 1:100 (green) for 40 minutes compared to control cells (blue), secondary only (light blue) and isotype control (orange)



L1 mouse intestine lysates L2 rat lung lysates probed with Anti Alpha Elastin Polyclonal Antibody, Unconjugated (AP52134) at 1:200 overnight at 4˚C. Followed by conjugation to secondary antibody at 1:3000 for 90 min at 37˚C. Predicted band 66kD. Observed band size: 66kD

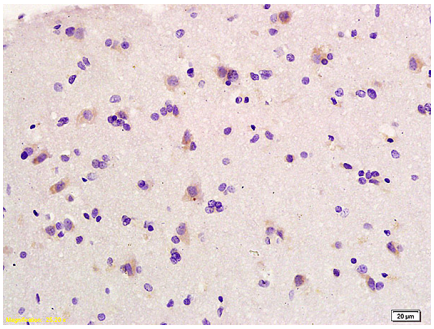


Formalin-fixed and paraffin embedded rat intervertebral disk labeled with Anti-ELASTIN, Unconjugated(AP52134) followed by conjugation to the secondary antibody and DAB staining



Formalin-fixed and paraffin embedded human artery labeled with Anti-Elastin Polyclonal Antibody, Unconjugated (AP52134) at 1:200 followed by conjugation to the secondary antibody and DAB staining.

Formalin-fixed and paraffin embedded human glioma labeled with Anti-Elastin Polyclonal Antibody, Unconjugated (AP52134) at 1:200 followed by conjugation to the secondary antibody and DAB staining.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.