

# elastin (A-19): sc-17580

## BACKGROUND

Elastic fibers, which are comprised primarily of elastin, endow loose connective tissue with a resilience that complements the tensile strength of collagenous fibers. Elastin is the main component of the extracellular matrix of arteries and it performs a regulatory function during arterial development by controlling proliferation of smooth muscle and stabilizing arterial structure. Elastin is composed largely of glycine, proline and other hydrophobic residues and contains multiple lysine-derived crosslinks, such as desmosines, which link individual polypeptide chains into a rubber-like network. During ageing, the elasticity of connective tissue becomes reduced, due to the cross-linking of collagenous fibers with elastin. Deficiencies of elastin are associated with multiple disorders, such as supravalvular aortic stenosis and Williams-Beuren syndrome. The human elastin gene maps to chromosome 7q11.23.

## CHROMOSOMAL LOCATION

Genetic locus: ELN (human) mapping to 7q11.23; Eln (mouse) mapping to 5 G2.

## SOURCE

elastin (A-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of elastin of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-17580 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

elastin (A-19) is recommended for detection of precursor tropoelastin and, to a lesser extent, mature elastin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for elastin siRNA (h): sc-43360, elastin siRNA (m): sc-43361, elastin shRNA Plasmid (h): sc-43360-SH, elastin shRNA Plasmid (m): sc-43361-SH, elastin shRNA (h) Lentiviral Particles: sc-43360-V and elastin shRNA (m) Lentiviral Particles: sc-43361-V.

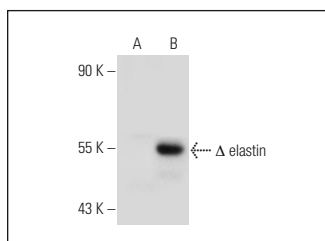
Molecular Weight of elastin: 70 kDa.

Positive Controls: A549 cell lysate: sc-2413, WI-38 whole cell lysate: sc-364260 or elastin (h): 293T Lysate: sc-117067.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



elastin (A-19): sc-17580. Western blot analysis of elastin expression in non-transfected: sc-117752 (A) and truncated human elastin transfected: sc-117067 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Yamashita, M., et al. 2010. Morphological and extracellular matrix changes following vocal fold injury in mice. *Cells Tissues Organs* 192: 262-271.
2. Moraes-Teixeira, Jde A., et al. 2010. Exercise training enhances elastin, fibrillin and nitric oxide in the aorta wall of spontaneously hypertensive rats. *Exp. Mol. Pathol.* 89: 351-357.
3. Xu, K., et al. 2010. Lunatic Fringe-mediated Notch signaling is required for lung alveogenesis. *Am. J. Physiol. Lung Cell. Mol. Physiol.* 298: L45-L56.
4. Samouillan, V., et al. 2014. Cardiomyocyte intracellular cholesteryl ester accumulation promotes tropoelastin physical alteration and degradation: role of LRP1 and cathepsin S. *Int. J. Biochem. Cell Biol.* 55: 209-219.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

**MONOS**  
Satisfaction  
Guaranteed

Try **elastin (BA-4): sc-58756** or **elastin (E-11): sc-166543**, our highly recommended monoclonal alternatives to elastin (A-19). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **elastin (BA-4): sc-58756**.