

# elastin (BA-4): sc-58756

## 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 it contains multiple lysine-derived crosslinks, such as desmosines, which link individual polypeptide chains into a rubber-like network. During aging, the elasticity of connective tissue becomes reduced because of 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 (BA-4) is a mouse monoclonal antibody raised against elastin of bovine origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

elastin (BA-4) is available conjugated to agarose (sc-58756 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-58756 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-58756 PE), fluorescein (sc-58756 FITC), Alexa Fluor<sup>®</sup> 488 (sc-58756 AF488), Alexa Fluor<sup>®</sup> 546 (sc-58756 AF546), Alexa Fluor<sup>®</sup> 594 (sc-58756 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-58756 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-58756 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-58756 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

elastin (BA-4) is recommended for detection of insoluble elastin,  $\alpha$ -elastin and soluble non-cross linked precursor of elastin (tropoelastin) 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500). elastin (BA-4) is also recommended for detection of insoluble elastin,  $\alpha$ -elastin and soluble non-cross linked precursor of elastin (tropoelastin) in additional species, including bovine, porcine, feline and canine.

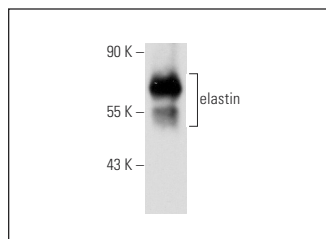
Suitable for use as control antibody for elastin siRNA (h): sc-43360, elastin siRNA (m): sc-43361, elastin siRNA (r): sc-270235, elastin shRNA Plasmid (h): sc-43360-SH, elastin shRNA Plasmid (m): sc-43361-SH, elastin shRNA Plasmid (r): sc-270235-SH, elastin shRNA (h) Lentiviral Particles: sc-43360-V, elastin shRNA (m) Lentiviral Particles: sc-43361-V and elastin shRNA (r) Lentiviral Particles: sc-270235-V.

Molecular Weight of elastin: 70 kDa.

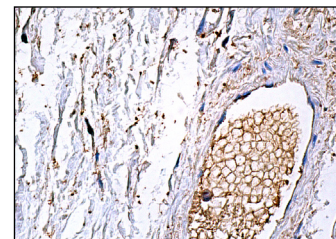
## STORAGE

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

## DATA



elastin (BA-4): sc-58756. Western blot analysis of elastin expression in mouse liver tissue extract.



elastin (BA-4): sc-58756. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing extracellular fibers and membrane staining of cells in seminiferous ducts.

## SELECT PRODUCT CITATIONS

- Munoz-Pinto, D.J., et al. 2009. Uncoupled investigation of scaffold modulus and mesh size on smooth muscle cell behavior. *J. Biomed. Mater. Res. A* 90: 303-316.
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- Patel, D., et al. 2011. Self-assembly of elastin-based peptides into the ECM: the importance of integrins and the elastin binding protein in elastic fiber assembly. *Biomacromolecules* 12: 432-440.
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- Soler, A., et al. 2018. Elevated 20-HETE in metabolic syndrome regulates arterial stiffness and systolic hypertension via MMP12 activation. *J. Mol. Cell. Cardiol.* 117: 88-99.
- Nanashima, N., et al. 2018. Blackcurrant anthocyanins increase the levels of collagen, elastin, and hyaluronic acid in human skin fibroblasts and ovariectomized rats. *Nutrients* 10: 495.

## RESEARCH USE

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

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