SANTA CRUZ BIOTECHNOLOGY, INC.

elastin (B-10): sc-166352

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Elastic fibers, which are comprised primarily of elastin, endow loose connective tissue with a resilience that compliments 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.

REFERENCES

1. Henin-Pizieux, O., et al. 1979. Isolation and characterization of desmosine(s) containing peptide fractions of normal and diseases human aortic elastin. Paroi Arterielle 5: 41-53.
2. Cambell, N. 1990. Biology. Redwood City, CA: The Benjamin/Cummings Publishing Company, Inc., 784-785.
3. Fazio, M.J., et al. 1991. Human elastin gene: new evidence for localization to the long arm of chromosome 7. Am. J. Hum. Genet. 48: 696-703.
4. Ewart, A.K., et al. 1993. Hemizygosity at the elastin locus in a developmental disorder, Williams syndrome. Nat. Genet. 5: 11-16.
5. Zhang, M.C., et al. 1999. Cutis laxa arising from frameshift mutations in exon 30 of the elastin gene (ELN). J. Biol. Chem. 274: 981-996.

CHROMOSOMAL LOCATION

Genetic locus: ELN (human) mapping to 7q11.23.

SOURCE

elastin (B-10) is a mouse monoclonal antibody raised against amino acids 431-730 of elastin of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

elastin (B-10) is recommended for detection of elastin of human origin by Western Blotting (starting dilution 1:100, 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 shRNA Plasmid (h): sc-43360-SH and elastin shRNA (h) Lentiviral Particles: sc-43360-V.

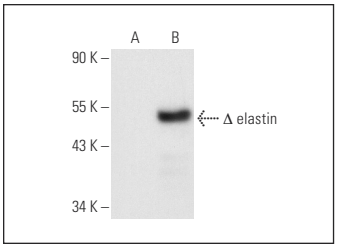
Molecular Weight of elastin: 70 kDa.

Positive Controls: elastin (h): 293T Lysate: sc-117067, MES-SA/Dx5 cell lysate: sc-2284 or BJ whole cell lysate: sc-364359.

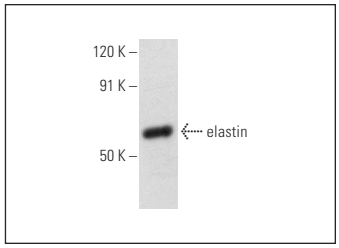
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



elastin (B-10): sc-166352. Western blot analysis of elastin expression in non-transfected: sc-117752 (**A**) and truncated human elastin transfected: sc-117067 (**B**) 293T whole cell lysates.



elastin (B-10): sc-166352. Western blot analysis of elastin expression in BJ whole cell lysate.

SELECT PRODUCT CITATIONS

1. Pandya, U.M., 2020. Calreticulin exploits TGFβ for extracellular matrix induction engineering a tissue regenerative process. FASEB J. 34: 15849-15874.

CONJUGATES

See **elastin (BA-4): sc-58756** for elastin antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.