SANTA CRUZ BIOTECHNOLOGY, INC.

elastin (h): 293T Lysate: sc-117067

BACKGROUND

Elastic fibers, which are comprised primarily of elastin, endow loose connective tissue with a resilience that complements the tensile stength 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 aging, 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.

REFERENCES

1. Henin-Pizieux, O., Davril, M. and Han, K.K. 1979. Isolation and characterization of desmosine(s) containing peptide fractions of normal and diseased 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., Mattei, M.G., Passage, E., Chu, M.L., Black, D., Solomon, E., Davidson, J.M. and Uitto, J. 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., Morris, C.A., Atkinson, D., Jin, W., Sternes, K., Spallone, P., Stock, A.D., Leppert, M. and Keating, M.T. 1993. Hemizygosity at the elastin locus in a developmental disorder, Williams syndrome. Nat. Genet. 5: 11-16.
5. Zhang, M.C., He, L., Giro, M., Yong, S.L., Tiller, G.E. and Davidson, J.M. 1999. Cutis laxa arising from frameshift mutations in exon 30 of the elastin gene (ELN). J. Biol. Chem. 274: 981-996.
6. LocusLink Report (LocusID 2006) http://www.ncbi.nlm.nih.gov/LocusLink/

CHROMOSOMAL LOCATION

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

PRODUCT

elastin (h): 293T Lysate represents a lysate of human elastin transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

elastin (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive elastin antibodies. Recommended use: 10-20 µl per lane.

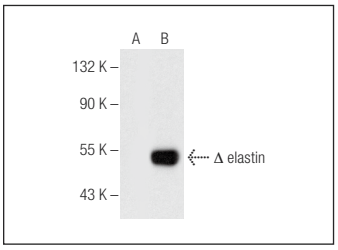
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

elastin (A-8): sc-374638 is recommended as a positive control antibody for Western Blot analysis of enhanced human elastin expression in elastin transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

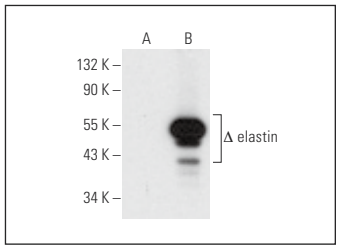
RECOMMENDED SUPPORT REAGENTS

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.

DATA



elastin (A-8): sc-374638. 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 (F-5): sc-166369. Western blot analysis of elastin expression in non-transfected: sc-117752 (**A**) and truncated human elastin transfected: sc-117067 (**B**) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.