Elastin Antibody for IHC / ELN Immunohistochemistry Antibody [clone MSVA-648R] (V5870)

Catalog No.	Formulation	Size
V5870-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V5870-20UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug

Recombinant RABBIT MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	MSVA-648R
UniProt	P15502
Localization	Extracellular matrix, Extracellular space, Secreted
Applications	Immunohistochemistry (FFPE): 1:100-1:200
Limitations	This Elastin Antibody for IHC / ELN Immunohistochemistry Antibody is available for research use only.



Elastin Antibody Tissue Microarray (TMA) IHC. Immunohistochemistry analysis of normal and cancer human tissue microarrays using Elastin Antibody clone MSVA-648R demonstrates strong extracellular matrix-associated HRP-DAB brown staining in elastin-rich connective tissue structures, vascular walls, smooth muscle-associated elastic fibers, and stromal compartments. Prominent staining is observed in tissues containing abundant elastic fiber architecture including aorta, lung, skin, urinary bladder, and selected stromal regions within epithelial tumors. In cancer tissues, elastin-associated staining is primarily localized to tumor stroma and extracellular connective tissue compartments rather than neoplastic epithelial cells, consistent with the established structural role of Elastin / ELN in extracellular matrix organization and tissue elasticity. The observed staining patterns align with publicly available Human Protein Atlas expression data and support use of this Elastin antibody for investigation of extracellular matrix biology, stromal remodeling, vascular structure, and connective tissue-associated signaling pathways in normal and malignant tissues.

Description

Elastin (ELN) is a major extracellular matrix protein responsible for imparting elasticity and recoil to tissues such as arteries, lung, and skin. As the core structural component of elastic fibers, Elastin forms highly organized extracellular networks that enable tissues to withstand repeated mechanical stress. These fibers are particularly abundant in vascular walls, pulmonary structures, and dermal connective tissue, where they contribute to tissue compliance and integrity. In immunohistochemistry, Elastin is visualized as extracellular, fibrillar or lamellar HRP-DAB brown staining, providing a distinct pattern that outlines connective tissue architecture. Elastin Antibody for IHC is widely used in formalin-fixed, paraffin-embedded tissues to evaluate elastic fiber distribution and extracellular matrix organization in histological sections.

Elastin antibody, also referred to as ELN antibody or elastic fiber antibody in the literature, recognizes an extracellular matrix protein with highly specific localization to elastic fiber networks. This Elastin Antibody for IHC is specifically optimized for Tissue Microarray (TMA)-based immunohistochemistry, enabling standardized, high-throughput comparison of elastin distribution across large panels of normal and cancer tissues. In normal tissue TMAs, strong and well-defined extracellular HRP-DAB brown staining is consistently observed in elastic fiber-rich structures including arterial media, dermal connective tissue, and lung parenchyma, where elastic fibers form organized networks. In contrast, epithelial cells, lymphoid tissues, and most non-connective cellular compartments remain largely negative, producing a clean background that enhances interpretation of extracellular matrix patterns.

In cancer tissue microarrays, Elastin staining highlights stromal organization and extracellular matrix remodeling rather than direct tumor cell labeling. Elastic fibers are often preserved, fragmented, or redistributed within the tumor microenvironment, with staining outlining vascular structures, fibrous stroma, and connective tissue boundaries surrounding tumor cells. These patterns provide insight into tumor-associated extracellular matrix remodeling and vascular architecture, making Elastin Antibody for IHC a valuable tool for studying stromal composition and structural changes in cancer tissues.

Tissue Microarray (TMA) analysis enables side-by-side evaluation of elastin distribution across hundreds of tissue cores under identical staining conditions, demonstrating highly reproducible extracellular staining patterns in elastic fiber-rich tissues alongside minimal background in non-expressing regions. The performance of clone MSVA-648R in TMA-based IHC highlights its ability to generate crisp, well-defined visualization of elastic fiber networks across diverse tissue types. The observed staining patterns are consistent with established elastin biology and reference datasets such as the Human Protein Atlas, supporting confidence in its specificity and utility for large-scale tissue profiling studies.

This antibody targets Elastin in research applications requiring precise and interpretable immunohistochemical detection of extracellular matrix structures in FFPE tissue sections, making it well suited for studies of vascular biology, tissue elasticity, stromal architecture, and extracellular matrix remodeling.

This antibody is part of the Elastin antibody collection, where additional ELN antibodies can be explored.

This antibody is also part of a broader collection of IHC antibodies validated by tissue microarray analysis, supporting consistent staining across normal and cancer tissues.

Application Notes

1. Optimal dilution of the Elastin Antibody for IHC / ELN Immunohistochemistry Antibody should be determined by the researcher.

2. This ELN/Elastin antibody is recombinantly produced by expression in human HEK293 cells.

3. Manual Protocol: Freshly cut sections should be used (less than 10 days between cutting and staining). Heat-induced antigen retrieval for 5 minutes in an autoclave at 121oC in pH 7.8 Target Retrieval Solution buffer. Apply the antibody at a dilution of 1:150 at 37oC for 60 minutes. Visualization of bound antibody by the EnVision Kit (Dako, Agilent) according to

the manufacturer's directions.

Immunogen

Recombinant full-length human Elastin protein was used as the immunogen for the ELN/Elastin antibody.

Storage

ELN/Elastin antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.

Alternate Names

ELN antibody, Elastin IHC antibody, elastic fiber antibody, Elastin immunohistochemistry antibody, extracellular matrix elastin antibody

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