

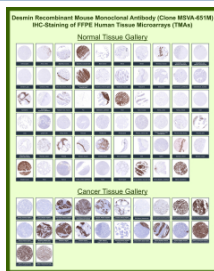
DES Antibody / Desmin [clone MSVA-651M] (V5869)

Catalog No.	Formulation	Size
V5869-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V5869-20UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug

Recombinant **MOUSE MONOCLONAL**

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Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	MSVA-651M
UniProt	P17661
Localization	Cell membrane, Cytoplasm, Myofibril, Nucleus, Sarcolemma, Sarcomere, Z line
Applications	Immunohistochemistry (FFPE) : 1:100-1:200
Limitations	This DES/Desmin antibody is available for research use only.



Immunohistochemistry tissue microarray analysis of Desmin expression. DES/Desmin antibody (clone MSVA-651M) was evaluated by immunohistochemistry on formalin-fixed, paraffin-embedded human tissue microarrays encompassing a wide range of normal and cancer tissues. Staining demonstrates cytoplasmic labeling in muscle-containing tissues and mesenchymal components consistent with known Desmin expression patterns, with strong reactivity observed in skeletal, cardiac, and smooth muscle compartments and variable expression across tumor types. Overall staining distribution and relative expression profiles are concordant with publicly available expression data reported by the Human Protein Atlas, supporting the biological relevance of the observed immunoreactivity.

Description

DES antibody targets Desmin, a muscle-specific intermediate filament protein encoded by the DES gene and a key structural component of the cytoskeleton in skeletal, cardiac, and smooth muscle cells. Desmin is a member of the type III intermediate filament family and forms an interconnected filamentous network that links myofibrils to each other and to cellular organelles, helping maintain muscle cell integrity and mechanical stability during contraction. DES antibody detection is widely used to study muscle differentiation and cytoskeletal organization.

Desmin is predominantly localized in the cytoplasm, where it is enriched at Z-discs and extends throughout the muscle fiber cytoskeleton. It plays a central role in anchoring contractile apparatus components and aligning sarcomeres, thereby ensuring coordinated force transmission. In addition to muscle cells, Desmin expression can be detected in myofibroblasts and certain mesenchymal cell populations, making DES antibody reagents useful for identifying muscle lineage and myogenic differentiation in tissue samples.

Functionally, Desmin contributes to cellular resilience by distributing mechanical stress and maintaining the spatial organization of mitochondria, nuclei, and other organelles within muscle fibers. Loss or disruption of the Desmin network leads to impaired muscle function and increased susceptibility to mechanical injury. DES antibody reagents support research into cytoskeletal dynamics, muscle development, and the molecular basis of muscle integrity.

Alterations in Desmin expression or structure are associated with a group of disorders known as desmin-related myopathies, which can affect skeletal and cardiac muscle. Abnormal Desmin accumulation or filament disorganization has also been observed in cardiomyopathies and certain soft tissue tumors. These disease associations highlight the importance of DES antibody-based detection in studies of muscle pathology, cardiac disease, and mesenchymal tumors.

Clone MSVA-651M is designed to recognize Desmin in research applications. DES antibody reagents are suitable for detecting protein expression and localization in muscle tissues and tumor samples, supporting investigations into muscle differentiation, cytoskeletal integrity, and disease-associated changes in intermediate filament organization.

Application Notes

1. Optimal dilution of the DES/Desmin antibody should be determined by the researcher.
2. This DES/Desmin 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 121°C in pH 7.8 Target Retrieval Solution buffer. Apply the antibody at a dilution of 1:150 at 37°C for 60 minutes. Visualization of bound antibody by the EnVision Kit (Dako, Agilent) according to the manufacturer's directions.

Immunogen

Recombinant full-length human desmin protein was used as the immunogen for the DES/Desmin antibody.

Storage

DES/Desmin antibody with sodium azide - store at 2 to 8°C; antibody without sodium azide - store at -20 to -80°C.