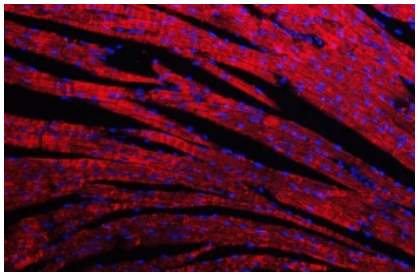
Desmin Antibody for IF / DES Immunofluorescence Antibody (R31530)

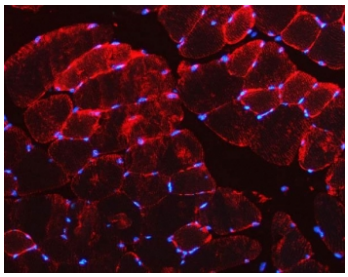
Catalog No.	Formulation	Size
R31530	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

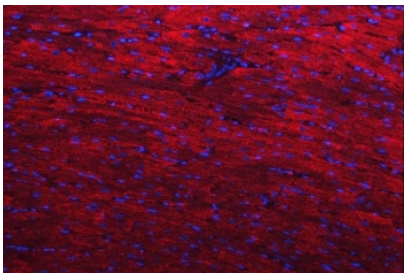
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide
Gene ID	1674
Localization	Cytoplasmic, membranous
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Immunohistochemistry (Frozen): 2-5ug/ml Immunofluorescence: 5ug/ml
Limitations	This Desmin Antibody for IF / DES Immunofluorescence Antibody is available for research use only.



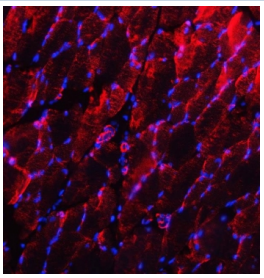
Desmin Antibody for IF Mouse Heart Immunofluorescence. Immunofluorescence analysis of Desmin (DES) expression in FFPE mouse heart tissue using Desmin Antibody for IF demonstrates strong cytoplasmic filamentous red fluorescence in cardiomyocytes, consistent with Desmin localization within the muscle cytoskeletal network, while nuclei are counterstained with DAPI (blue). The staining pattern highlights organized myofibrillar structure and muscle cell architecture, with signal confined to cardiac muscle cells and minimal background in non-muscle components. Heat-induced epitope retrieval was performed by steaming sections in pH8 EDTA buffer for 20 minutes prior to antibody incubation.



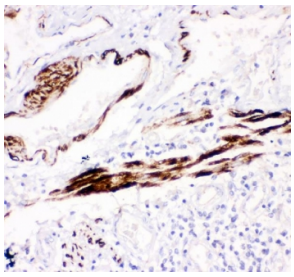
Desmin Antibody for IF Mouse Skeletal Muscle Immunofluorescence. Immunofluorescence analysis of Desmin (DES) expression in FFPE mouse skeletal muscle tissue using Desmin Antibody for IF demonstrates strong cytoplasmic filamentous red fluorescence outlining muscle fibers, consistent with Desmin localization within the myofibrillar cytoskeletal network, while nuclei are counterstained with DAPI (blue). The staining pattern highlights muscle fiber architecture and clear delineation of individual myocytes with minimal background signal. Heat-induced epitope retrieval was performed by steaming sections in pH8 EDTA buffer for 20 minutes prior to antibody incubation.



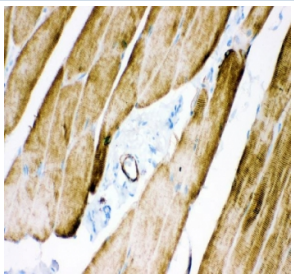
Desmin Antibody for IF Rat Heart Immunofluorescence. Immunofluorescence analysis of Desmin (DES) expression in FFPE rat heart tissue using Desmin Antibody for IF demonstrates strong cytoplasmic filamentous red fluorescence in cardiomyocytes, consistent with Desmin localization within the cardiac muscle cytoskeletal network, while nuclei are counterstained with DAPI (blue). The staining pattern highlights organized myofibrillar structure and muscle fiber alignment with minimal background in non-muscle components. Heat-induced epitope retrieval was performed by steaming sections in pH8 EDTA buffer for 20 minutes prior to antibody incubation.



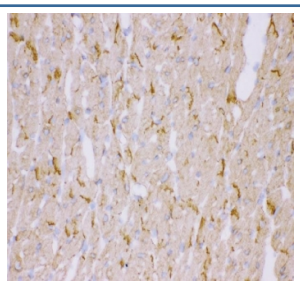
Desmin Antibody for IF Rat Skeletal Muscle Immunofluorescence. Immunofluorescence analysis of Desmin (DES) expression in FFPE rat skeletal muscle tissue using Desmin Antibody for IF demonstrates strong cytoplasmic filamentous red fluorescence outlining muscle fibers, consistent with Desmin localization within the myofibrillar cytoskeletal network, while nuclei are counterstained with DAPI (blue). The staining pattern highlights muscle fiber organization and clear delineation of individual myocytes with minimal background signal. Heat-induced epitope retrieval was performed by steaming sections in pH8 EDTA buffer for 20 minutes prior to antibody incubation.



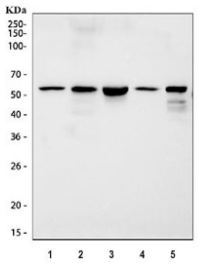
IHC staining of FFPE human lung cancer tissue with Desmin antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE rat skeletal muscle tissue with Desmin antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of frozen rat heart tissue with Desmin antibody.



Western blot testing of 1) rat heart, 2) rat skeletal muscle, 3) rat C2C12, 4) mouse heart and 5) mouse skeletal muscle tissue lysate with Desmin antibody. Predicted molecular weight ~54 kDa.

Description

Desmin (DES) is a muscle-specific intermediate filament protein that plays a central role in maintaining cytoskeletal integrity and spatial organization of muscle cells. It is expressed in skeletal, cardiac, and smooth muscle tissues, where it forms an interconnected filament network linking Z-discs, mitochondria, and the sarcolemma to support mechanical stability and intracellular organization. In immunofluorescence, Desmin is visualized as a filamentous cytoplasmic network, making it a highly informative marker for examining muscle cell architecture at high resolution. Desmin Antibody for IF is widely used in fixed cells and tissue sections to visualize DES expression and assess cytoskeletal organization in fluorescence-based imaging applications. This antibody can be compared with our Desmin Antibody (clone DES/2960R) for detection of desmin as a muscle marker with validation supported by gene knockdown.

Desmin antibody, also referred to as DES antibody or muscle intermediate filament antibody in the literature, recognizes a cytoplasmic filament protein with highly restricted expression in muscle lineage cells. This Desmin Antibody for IF is particularly well suited for immunofluorescence microscopy, where fluorescent labeling enables detailed visualization of filament organization, cell morphology, and intracellular structure. In cultured cells, Desmin staining appears as an extensive filamentous network distributed throughout the cytoplasm, often forming a scaffold-like pattern that reflects the underlying cytoskeletal framework of myocytes and smooth muscle cells.

In tissue-based immunofluorescence studies, Desmin expression highlights muscle layers and myogenic cell populations, including skeletal muscle fibers, cardiac myocytes, and smooth muscle cells within vascular and gastrointestinal structures. The filamentous staining pattern enables clear identification of muscle-derived cells and provides spatial context for analyzing tissue architecture. Desmin Antibody for IF is commonly used in co-localization experiments with other cytoskeletal or lineage markers, such as actin or smooth muscle-specific proteins, to study cellular organization, differentiation states, and structural relationships within muscle tissue.

Fluorescence-based detection of Desmin enables high-resolution imaging of cytoskeletal networks and supports analysis of filament integrity, distribution, and remodeling under physiological and pathological conditions. The muscle-specific expression of DES allows clear discrimination between myogenic and non-myogenic cell populations in mixed cell systems and tissue environments. This makes Desmin Antibody for IF particularly valuable for studies of muscle development, cytoskeletal dynamics, and soft tissue tumor biology, where visualization of structural organization is critical.

This antibody targets Desmin in research applications requiring sensitive, spatially resolved detection of muscle cytoskeletal structures, making it well suited for immunofluorescence imaging, co-localization analysis, and investigation of muscle cell differentiation and organization.

Learn more about Desmin expression, muscle tissue identification, and knockdown-validated detection on our Desmin Antibody / Knockdown-Validated Muscle Marker page.

Application Notes

The stated application concentrations are suggested starting points. Titration of the Desmin Antibody for IF / DES Immunofluorescence Antibody antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Human partial recombinant protein (AA 1-304) was used as the immunogen for this Desmin/DES antibody.

Storage

After reconstitution, the Desmin/DES antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

DES antibody, Desmin IF antibody, muscle intermediate filament antibody, Desmin immunofluorescence antibody, DES fluorescence antibody

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