

DESCRIPTION

Species Reactivity	Human
Specificity	Detects recombinant human Desmin protein in Direct ELISA.
Source	Recombinant Monoclonal Rabbit IgG Clone # 3112A
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Desmin Val261-Leu470 Accession # P17661
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.

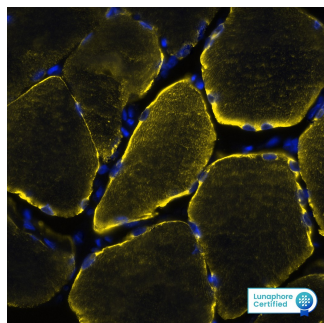
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	RD human rhabdomyosarcoma cell line, C2C12 mouse myoblast cell line and rat heart tissue
Multiplex Immunofluorescence	0.1 µg/mL	Immersion fixed paraffin-embedded sections of human Skeletal Muscle
Immunohistochemistry	1-10 µg/mL	Immersion fixed paraffin embedded sections of human heart and human skeletal muscle

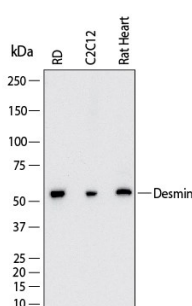
DATA

Multiplex Immunofluorescence



Detection of Desmin in Human Skeletal Muscle via seqIF™ staining on COMET™ Desmin was detected in immersion fixed paraffin-embedded sections of human Skeletal Muscle using Rabbit Anti-Human Monoclonal Antibody (Catalog # MAB11654) at 0.1µg/mL at 37° Celsius for 4 minutes. Before incubation with the primary antibody, tissue underwent an all-in-one dewaxing and antigen retrieval preprocessing using PreTreatment Module (PT Module) and Dewax and HIER Buffer H (pH 9; Eprelia Catalog # TA-999-DHBH). Tissue was stained using the Alexa Fluor™ Plus 647 Goat anti-Rabbit IgG Secondary Antibody at 1:200 at 37° Celsius for 2 minutes. (Yellow; Lunaphore Catalog # DR647RB) and counterstained with DAPI (blue; Lunaphore Catalog # DR100). Specific staining was localized to the cell membrane. Protocol available in [COMET™ Panel Builder](#).

Western Blot



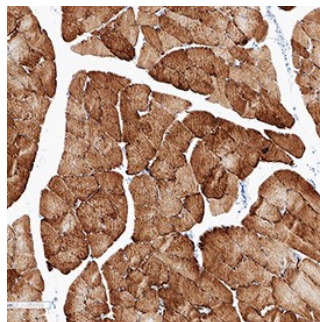
Detection of Human, Mouse and Rat Desmin by Western Blot. Western Blot shows lysates of RD human rhabdomyosarcoma cell line, C2C12 mouse myoblast cell line and rat heart tissue. PVDF membrane was probed with 1 µg/ml of Rabbit Anti-Human Desmin Monoclonal Antibody (Catalog # MAB11654) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for Desmin at approximately 52 kDa (as indicated). This experiment was conducted under reducing conditions and using [Western Blot Buffer Group 1](#).

Immunohistochemistry



Detection of Desmin in Human Heart. Desmin was detected in immersion fixed paraffin-embedded sections of human heart using Rabbit Anti-Human Desmin Monoclonal Antibody (Catalog # MAB11654) at 3 µg/ml for 1 hour at room temperature followed by incubation with the Anti-Rabbit IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC003) or the HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using VisUCyte Antigen Retrieval Reagent-Basic (Catalog # VCTS021). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to the cytoplasm of cardiomyocytes. View our protocol for [IHC Staining with VisUCyte HRP Polymer Detection Reagents](#).

Immunohistochemistry



Detection of Desmin in Human Skeletal Muscle. Desmin was detected in immersion fixed paraffin-embedded sections of human skeletal muscle using Rabbit Anti-Human Desmin Monoclonal Antibody (Catalog # MAB11654) at 3 µg/ml for 1 hour at room temperature followed by incubation with the Anti-Rabbit IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC003) or the HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using VisUCyte Antigen Retrieval Reagent-Basic (Catalog # VCTS021). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to the cytoplasm. View our protocol for [IHC Staining with VisUCyte HRP Polymer Detection Reagents](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute lyophilized material at 0.2 mg/ml in sterile PBS. For liquid material, refer to CoA for concentration.
Shipping	Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Desmin is a 53 kDa, muscle-specific molecule that belongs to the intermediate filament superfamily of cytoskeletal proteins. Cytoplasmic Desmin homopolymers form stable filamentous networks that stabilize lateral alignments of myofibrils. Human Desmin is 470 amino acid peptide. It contains an N-terminal head segment (aa 1-84), multiple coiled regions (aa 109-412) and a tail region (aa 413-470). Single amino acid substitutions and three-amino acid deletions are associated with cardiovascular myopathies. Most mutations affect filament assembly. Desmin is a highly conserved protein. Over the region used as immunogen, human Desmin is 99% identical to the corresponding mouse, canine and porcine protein sequences.