



Desmin

IHC of Desmin on an FFPE Skeletal Muscle Tissue

Description Desmin is a type of intermediate filament found near the Z line in sarcomeres. Both vimentin and desmin are characteristics of mesenchymal cells.

Desmin antibody detects a protein that is expressed by cells of normal smooth, skeletal and cardiac muscles. The light microscope has suggested that Desmin is primarily located at or near the periphery of Z lines in striated muscle fibrils. In smooth muscle, Desmin interconnects cytoplasmic dense bodies with membrane-bound dense plaques. Desmin antibody reacts with Leiomyomas, Rhabdomyomas, and Perivascular cells of Glomus Tumors of the skin (if they are of myogenic nature). This antibody is used to demonstrate the myogenic components/derivation of tumors.

Antibody Type	Mouse Monoclonal	Clone	D33
Isotype	IgG1/K	Reactivity	Paraffin, Frozen
Localization	Cytoplasmic	Control	Skeletal Muscle
Storage	Store at 2°-8°C	Stability	2 years

For long-term storage of the concentrated antibody, it is recommended that aliquots of the antibody be frozen at -20°C in glycerol 50% (frost-free freezers are not recommended). Repeated freezing and thawing must be avoided. Dilute using an antibody diluent such as ImmunoDetector Protein Block/Antibody Diluent (BSB 0040 and BSB 0041) or ImmunoDNA Background Blocker (BSB 0103-BSB 0107).

Presentation Desmin antibody is a mouse monoclonal antibody derived from cell culture supernatant that is concentrated, dialyzed, filter sterilized and diluted in buffer pH 7.5, containing BSA and sodium azide as a preservative.

Availability	Catalog No.	Antibody Type	Dilution	Volume/QTY
	BSB 5456	Prediluted	Ready-To-Use	3.0 ml
	BSB 5457	Prediluted	Ready-To-Use	7.0 ml
	BSB 5458	Prediluted	Ready-To-Use	15.0 ml
	BSB 5459	Concentrated	1:25-1:100	0.1 ml
	BSB 5460	Concentrated	1:25-1:100	0.5 ml
	BSB 5461	Concentrated	1:25-1:100	1.0 ml
	BSB 5462	Control Slides		5

Note: For concentrated antibodies, please centrifuge prior to use to ensure recovery of all product.

- References**
1. Nadji M, et al. *Immunoperoxidase Techniques*. 1986;ASCP
 2. Altmannsberger M, et al. *Am J Pathol*. 1985;118:85-95
 3. Debus E, et al. *EMBO J*. 1983;2:2305-2312

Protocol Suggested protocol on reverse

Recommended Immunohistochemical Protocol

- Pretreatment**
1. Cut and mount 3-4 micron formalin-fixed paraffin-embedded tissues on positive charged slides.
 2. Air dry for 2 hours at 58° C.
 3. Deparaffinize, dehydrate and rehydrate tissues.
 4. Subject tissues to heat epitope retrieval using a suitable retrieval solution such as **ImmunoDNA Retriever with Citrate** (BSB 0020-BSB 0023) or **EDTA** (BSB 0030-BSB 0033).
 5. Any of three heating methods may be used:
 - a. **Electric Pressure Cooker**
Place standoff rack at base of pressure cooker. Add 1-2 inches of distilled water to the pressure cooker and turn heat to high, and incubate for 15 minutes. Open and immediately transfer slides to room temperature.
 - b. **Water Bath Method**
Place tissues/slides in a pre-warmed staining dish or coplin jar containing the **ImmunoDNA Retriever with Citrate** or **EDTA** in a water bath set at 95°-99° C. Incubate for 30-60 minutes.
 - c. **Conventional Steamer Method**
Place tissues/slides in a pre-warmed staining dish or coplin jar containing the **ImmunoDNA Retriever with Citrate** or **EDTA** in a Steamer, cover and steam for 30-60 minutes.
 6. After heat treatment, transfer slides in **ImmunoDNA Retriever with Citrate** or **EDTA** to room temperature and let stand for 15-20 minutes.
 7. Wash slides with IHC wash buffer or DI water.
 8. Continue IHC staining protocol.

Immunohistochemical Protocol

Step	ImmunoDetector (AP or HRP)	PolyDetector (AP or HRP)
Peroxidase/AP Block	5 minutes	5 minutes
Primary Antibody	30 minutes	45 minutes
Secondary Biotinylated Link	10 minutes	Not Applicable
AP or HRP Label	10 minutes	45 minutes
Substrate-Chromogen	5-10 minutes	10 minutes
Counterstaining	Time varies with counterstain	Time varies with counterstain

