

# Desmin Antibody [clone D33] (V3200)

Catalog No.	Formulation	Size
V3200-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3200-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3200SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

# **Bulk quote request**

Availability	1-3 business days
Species Reactivity	Human, Rat
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	D33
Purity	Protein A/G affinity
UniProt	P17661
Localization	Cytoplasmic, membranous
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This Desmin antibody is available for research use only.



IHC testing of FFPE human leiomyosarcoma with Desmin antibody (clone D33). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.

## **Description**

Desmin antibody is widely employed to study desmin, a type III intermediate filament protein essential for maintaining muscle cell structure and function. Desmin is predominantly expressed in skeletal, cardiac, and smooth muscle cells,

where it forms a supportive cytoskeletal network connecting the contractile apparatus to cellular organelles. This network ensures mechanical integrity during contraction and provides structural linkage between different parts of the muscle fiber.

Desmin filaments assemble around the Z disc of sarcomeres, integrating myofibrils into a coherent structure that transmits force efficiently. They also interact with mitochondria, nuclei, and the plasma membrane, thereby coordinating organelle positioning and signaling pathways. Loss of desmin function or mutations in the DES gene lead to disorganization of the cytoskeleton, impaired muscle function, and desmin related myopathy. Because of these roles, desmin is an essential marker for muscle differentiation and pathology.

This Desmin antibody produced from clone D33 has long been a standard in muscle biology research and diagnostic pathology. Clone D33 reliably binds to desmin epitopes across a range of species, making it a trusted tool for detecting muscle derived tissues. It is frequently used to confirm myogenic origin in tumors and to assess muscle differentiation in developmental studies. The consistent specificity of clone D33 ensures accurate identification of desmin positive cells in diverse research contexts.

Desmin detection is valuable for studying muscle regeneration, cardiomyopathies, and smooth muscle tumors. In pathology, the presence of desmin helps classify sarcomas and distinguish them from other soft tissue tumors. In developmental biology, its expression pattern marks early commitment to the muscle lineage. By providing clarity on the cytoskeletal organization of muscle cells, desmin research supports improved understanding of muscle physiology and disease.

NSJ Bioreagents supplies this Desmin antibody to enable high quality studies of cytoskeletal organization in muscle tissue. Researchers using this reagent gain a dependable tool for analyzing muscle development and pathology. Alternate terms such as DES antibody, muscle specific class III intermediate filament antibody, skeletal muscle protein antibody, and smooth muscle cytoskeleton antibody reflect the varied nomenclature employed by scientists investigating this key structural protein.

## **Application Notes**

Optimal dilution of the Desmin antibody should be determined by the researcher.

#### **Immunogen**

Human leiomyoma proteins were used as the immunogen for the Desmin antibody.

### **Storage**

Store the Desmin antibody at 2-8oC.