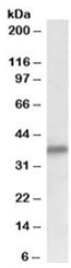
Delta-Sarcoglycan Antibody / SGCD Antibody (R35676)

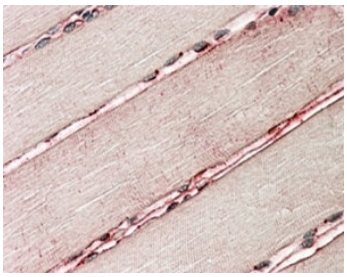
Catalog No.	Formulation	Size
R35676-100UG	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Rat
Predicted Reactivity	Mouse, Dog, Pig, Cow
Format	Antigen affinity purified
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
Gene ID	6444
Applications	Western blot: 0.1-0.3ug/ml Immunohistochemistry (FFPE): 3-5ug/ml ELISA (peptide) LOD: 1:16000
Limitations	This Delta-Sarcoglycan antibody is available for research use only.



Delta-Sarcoglycan Antibody Human Heart WB. Western blot analysis of human heart lysate using Delta-Sarcoglycan Antibody / SGCD Antibody. Protein was detected with the primary antibody at 0.1 ug/ml. A distinct band is observed at approximately 35 kDa, consistent with the predicted molecular weight of delta-sarcoglycan. The strong signal in heart tissue is consistent with the abundant expression of SGCD in cardiac muscle, where it functions as a core component of the sarcoglycan complex within the dystrophin-associated glycoprotein complex. This Delta-Sarcoglycan Antibody, also called SGCD Antibody, is suitable for studies of sarcoglycan biology, muscle membrane stability, muscular dystrophy, and cardiac and skeletal muscle physiology.



Delta-Sarcoglycan Antibody Human Skeletal Muscle IHC. Immunohistochemical analysis of FFPE human skeletal muscle using Delta-Sarcoglycan Antibody / SGCD Antibody. Heat-induced epitope retrieval was performed by steaming tissue sections in pH6 citrate buffer, followed by alkaline phosphatase-based detection. The primary antibody was applied at 3.8 ug/ml. Distinct sarcolemmal staining outlines individual skeletal muscle fibers, consistent with the expected membrane localization of delta-sarcoglycan within the sarcoglycan complex. This Delta-Sarcoglycan Antibody, also called SGCD Antibody, is suitable for studies of sarcoglycan biology, muscle membrane stability, dystrophin-associated protein complexes, and skeletal and cardiac muscle physiology.

Description

Delta-Sarcoglycan Antibody / SGCD Antibody recognizes delta-sarcoglycan, a single-pass transmembrane glycoprotein encoded by the SGCD gene. Delta-sarcoglycan is one of four core sarcoglycan family members that assemble within the dystrophin-associated glycoprotein complex, where they help stabilize the sarcolemma during muscle contraction and relaxation. Expression is highest in skeletal, cardiac, and smooth muscle, reflecting its essential role in maintaining muscle fiber integrity. As a component of this membrane-associated complex, delta-sarcoglycan contributes to the mechanical linkage between the intracellular cytoskeleton and the extracellular matrix, protecting muscle cells from contraction-induced damage.

Delta-sarcoglycan functions together with alpha, beta, and gamma sarcoglycan to form a tightly associated membrane complex that is required for normal muscle physiology. Proper assembly of the sarcoglycan complex is essential for maintaining the stability of the dystrophin-associated glycoprotein complex, and disruption of any component can impair membrane integrity and muscle function. Because of its structural and functional importance, Delta-Sarcoglycan Antibody is widely used to investigate sarcolemma organization, muscle development, membrane protein localization, and the molecular mechanisms that preserve skeletal and cardiac muscle architecture.

Variants in SGCD are associated with autosomal recessive limb-girdle muscular dystrophy and may also contribute to cardiomyopathy in affected individuals. Loss of delta-sarcoglycan destabilizes the sarcoglycan complex, increasing susceptibility to muscle fiber degeneration and progressive weakness. Consequently, SGCD has become an important research target for studies of inherited muscular dystrophies, cardiac muscle disease, regenerative medicine, and emerging gene replacement and genome editing approaches designed to restore normal muscle function. Delta-Sarcoglycan Antibody supports investigations into disease mechanisms as well as therapeutic strategies aimed at preserving sarcolemmal stability.

Delta-sarcoglycan is routinely evaluated using Western blotting, immunohistochemistry, immunofluorescence, flow cytometry, and related protein detection methods to characterize muscle tissues and experimental disease models. Skeletal muscle and cardiac muscle are commonly used as positive control tissues because of their abundant endogenous expression. A Delta-Sarcoglycan Antibody is a valuable research tool for detecting endogenous SGCD expression and investigating sarcoglycan biology, dystrophin-associated protein complexes, muscle membrane stability, muscular dystrophy, and skeletal and cardiac muscle physiology.

Learn more about SGCD biology and its role within the sarcoglycan complex by visiting our SGCD Antibody / Sarcoglycan Family Protein Antibody page.

Application Notes

Optimal dilution of the Delta-Sarcoglycan antibody should be determined by the researcher.

1. This delta-Sarcoglycan antibody will detect isoforms 1 and 3.

Immunogen

Amino acids RLPHGSYTPTGTR were used as the immunogen for this Delta-Sarcoglycan antibody. This sequence is specific to isoforms 1 and 3.

Storage

Aliquot and store the Delta-Sarcoglycan antibody at -20oC.

Alternate Names

Delta-Sarcoglycan antibody, SGCD antibody, Sarcoglycan Delta antibody, 35 kDa Dystrophin-Associated Glycoprotein antibody

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