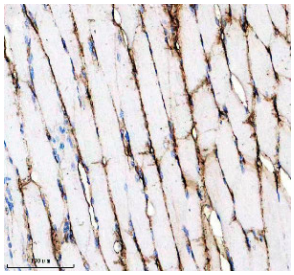
SGCD Antibody / Sarcoglycan Family Protein Antibody [clone AbS97] (FY13494)

Catalog No.	Formulation	Size
FY13494	Rabbit IgG in stabilizing components, phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol	100 ul

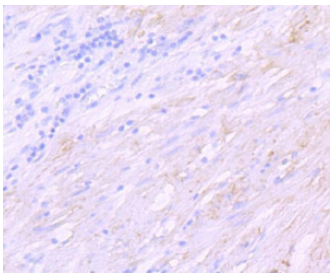
Recombinant RABBIT MONOCLONAL

Bulk quote request

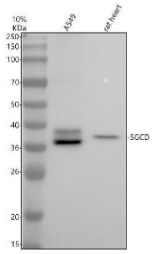
Species Reactivity	Human, Rat
Format	Liquid
Host	Mouse
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	AbS97
Purity	Affinity chromatography
UniProt	Q92629
Applications	Western Blot : 1:500-1:2000 Immunohistochemistry (FFPE) : 1:50-1:200
Limitations	This SGCD Antibody / Sarcoglycan Family Protein Antibody is available for research use only.



SGCD Antibody Rat Skeletal Muscle IHC. Immunohistochemical analysis of FFPE rat skeletal muscle tissue using SGCD Antibody / Sarcoglycan Family Protein Antibody, clone AbS97. Heat-induced epitope retrieval was performed in EDTA buffer (pH 8.0). The tissue was incubated with the recombinant rabbit monoclonal antibody at a 1:50 dilution overnight at 4Â°C, followed by an HRP-conjugated goat anti-rabbit secondary antibody and DAB chromogen detection. Strong membranous staining is observed outlining skeletal muscle fibers, consistent with the expected sarcolemmal localization of SGCD in muscle tissue. This SGCD Antibody, also called Sarcoglycan Family Protein Antibody, is suitable for studies of sarcoglycan biology, muscle membrane stability, dystrophin-associated protein complexes, and skeletal and cardiac muscle physiology.



SGCD Antibody Human Stomach Carcinoma IHC. Immunohistochemical analysis of FFPE human stomach carcinoma tissue using SGCD Antibody / Sarcoglycan Family Protein Antibody, clone AbS97. Heat-induced epitope retrieval was performed in Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes. The recombinant rabbit monoclonal antibody was applied at a 1:100 dilution, and staining was visualized using an HRP polymer detection system with DAB chromogen. Membranous and cytoplasmic staining is observed within the tumor tissue, consistent with SGCD expression, while hematoxylin provides nuclear counterstaining. This SGCD Antibody, also called Sarcoglycan Family Protein Antibody, is suitable for studies of sarcoglycan biology, muscle membrane stability, dystrophin-associated protein complexes, and skeletal and cardiac muscle physiology.



SGCD Antibody Human A549 Cell and Rat Heart WB. Western blot analysis of human A549 whole cell lysate (lane 1) and rat heart tissue lysate (lane 2) using SGCD Antibody / Sarcoglycan Family Protein Antibody, clone AbS97. Proteins were separated on a 10% SDS-PAGE gel, transferred to a nitrocellulose membrane, and incubated with the recombinant rabbit monoclonal antibody at a 1:500 dilution, followed by an HRP-conjugated goat anti-rabbit secondary antibody for chemiluminescent detection. A specific band was detected at approximately 38 kDa in both samples, consistent with SGCD expression, although the predicted molecular weight is approximately 32 kDa. This SGCD Antibody, also called Sarcoglycan Family Protein Antibody, is suitable for studies of sarcoglycan biology, muscle membrane stability, dystrophin-associated protein complexes, and skeletal and cardiac muscle physiology.

Description

SGCD Antibody / Sarcoglycan Family Protein Antibody, clone AbS97, recognizes sarcoglycan delta (SGCD), a transmembrane glycoprotein that is an essential component of the sarcoglycan complex within the dystrophin-associated glycoprotein complex. This multiprotein assembly links the intracellular cytoskeleton to the extracellular matrix, helping stabilize the muscle cell membrane during repeated cycles of contraction and relaxation. SGCD is expressed primarily in skeletal, cardiac, and smooth muscle, where it contributes to membrane integrity and normal muscle function. As a recombinant rabbit monoclonal antibody, clone AbS97 provides a highly specific reagent for investigating SGCD expression in muscle biology and disease research.

The sarcoglycan complex consists of alpha, beta, gamma, and delta sarcoglycans, which assemble into a tightly associated membrane complex that functions together with dystrophin and other dystrophin-associated proteins. Loss or dysfunction of any sarcoglycan component can destabilize the entire complex, increasing membrane fragility and promoting muscle fiber degeneration. Because SGCD plays a structural role within this protein network, it has become an important target for studies examining muscle development, membrane organization, mechanotransduction, and maintenance of skeletal and cardiac muscle tissue. An SGCD Antibody enables researchers to evaluate protein localization, expression patterns, and alterations in experimental models of muscle disease.

Pathogenic variants in SGCD are associated with autosomal recessive limb-girdle muscular dystrophy, resulting in progressive skeletal muscle weakness and, in some patients, cardiomyopathy. Deficiency of SGCD disrupts assembly of the sarcoglycan complex and compromises the stability of the dystrophin-associated glycoprotein complex, leading to increased susceptibility to contraction-induced muscle injury. Consequently, SGCD is widely investigated in studies of inherited muscular dystrophies, cardiac muscle disorders, regenerative medicine, and therapeutic strategies aimed at restoring sarcolemmal integrity. SGCD Antibody is also valuable for evaluating the effects of gene replacement, genome editing, and other experimental interventions designed to preserve muscle function.

In laboratory research, SGCD expression is commonly analyzed by Western blotting, immunohistochemistry, immunofluorescence, and related protein detection methods to characterize muscle tissues and experimental disease models. Because of its highly restricted muscle expression, skeletal and cardiac muscle are frequently used as positive

control tissues for assay development and validation. An SGCD Antibody is a valuable research tool for detecting endogenous SGCD expression and investigating sarcoglycan biology, muscle membrane stability, dystrophin-associated protein complexes, muscular dystrophy, and skeletal and cardiac muscle physiology.

Application Notes

Optimal dilution of the SGCD Antibody / Sarcoglycan Family Protein Antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Sarcoglycan delta protein was used as the immunogen for the SGCD Antibody.

Storage

Store the SGCD Antibody at -20oC for one year, or at 4oC for one month.

Alternate Names

SGCD antibody, Sarcoglycan Delta antibody, Delta-Sarcoglycan antibody, Sarcoglycan Family Protein antibody