

SYPL2 Antibody
Catalog # ASC10939**Specification**

SYPL2 Antibody - Product Information

Application	WB, IHC, IF
Primary Accession	Q5VXT5
Other Accession	NP_001035799 , 105554421
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	SYPL2 antibody can be used for detection of SYPL2 by Western blot at 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.

SYPL2 Antibody - Additional InformationGene ID **284612****Target/Specificity**

SYPL2; At least two isoforms of SYPL2 are known to exist. SYPL2 antibody will not cross-react with SYPL1.

Reconstitution & Storage

SYPL2 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions

SYPL2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

SYPL2 Antibody - Protein Information**Name** SYPL2**Function**

Involved in communication between the T-tubular and junctional sarcoplasmic reticulum (SR) membranes.

Cellular Location

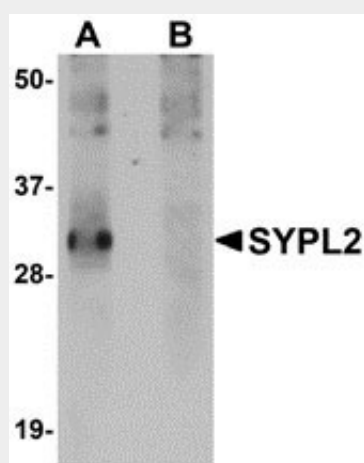
Membrane; Multi-pass membrane protein. Note=Triad junction, the junctional complex between the transverse tubule and the sarcoplasmic reticulum

SYPL2 Antibody - Protocols

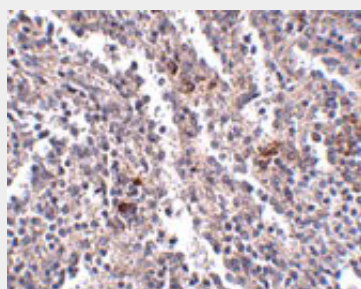
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

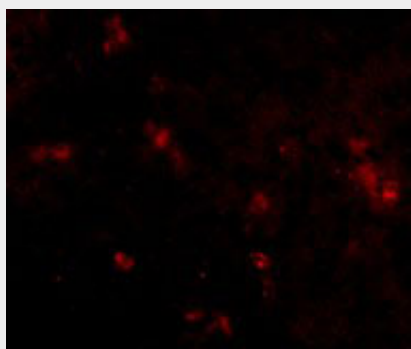
SYPL2 Antibody - Images



Western blot analysis of SYPL2 in human spleen tissue lysate with SYPL2 antibody at 1 $\mu\text{g/mL}$ in (A) the absence and (B) the presence of blocking peptide.



Immunohistochemistry of SYPL2 in human spleen tissue with SYPL2 antibody at 2.5 $\mu\text{g/mL}$.



Immunofluorescence of SYPL2 in Human Spleen cells with SYPL2 antibody at 20 µg/mL.

SYPL2 Antibody - Background

SYPL2 Antibody: SYPL2, also known as Mitsugumin 29, was initially identified as a transmembrane protein from the triad junction in skeletal muscle that had significant homology with members of the synaptophysin family. SYPL2 is thought to participate in the excitation-contraction coupling process of skeletal muscle as SYPL2-null mice showed reduced muscle contractile force and altered triad junction structure and increased susceptibility to fatigue of the skeletal muscle. SYPL2 plays a critical role in muscle Ca²⁺ signaling by regulating the process of store-operated Ca²⁺ entry and interacts with ryanodine receptor (RyR), thereby influencing intracellular Ca²⁺ homeostasis through changes in the RyR/Ca²⁺ release function. Co-expression of SYPL2 and RyR in cultured cells leads to apoptotic cell death resulting from the depletion of Ca²⁺ from the intracellular stores.

SYPL2 Antibody - References

Takeshima H, Simuta M, Komazaki S, et al. Mitsugumin29, a novel synaptophysin family member from the triad junction in skeletal muscle. *Biochem. J.*1998; 331:317-22.
Nishi M, Komazaki S, Kurebayashi Y, et al. Abnormal features in skeletal muscle from mice lacking mitsugumin29. *J. Cell Biol.*1999; 147:1473-80.
Nagaraj RY, Nosek CM, Brotto MA, et al. Increased susceptibility to fatigue of slow- and fast-twitch muscles from mice lacking the MG29 gene. *Physiol. Genom.*2000; 4:43-9.
Pan Z, Hirata D, Nagaraj RY, et al. Dysfunction of store-operated calcium channel in muscle cells lacking mg29. *Nat. Cell Biol.*2002; 4:379-83.