

**SYPL2 Antibody**  
**Catalog # ASC10939****Specification**

---

**SYPL2 Antibody - Product Information**

Application	WB, IHC, IF
Primary Accession	<a href="#">Q5VXT5</a>
Other Accession	<a href="#">NP_001035799</a> , <a href="#">105554421</a>
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 Information**Gene 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**

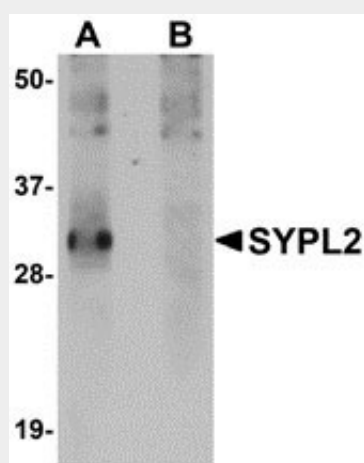
Membrane; Multi-pass membrane protein. Note=Triad junction, the junctional complex between the transverse tubule and the sarcoplasmic reticulum

## SYPL2 Antibody - Protocols

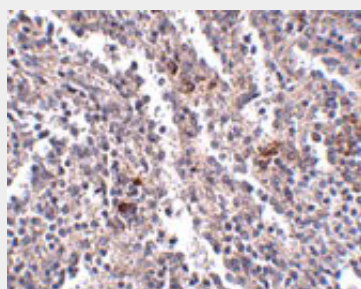
Provided below are standard protocols that you may find useful for product applications.

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

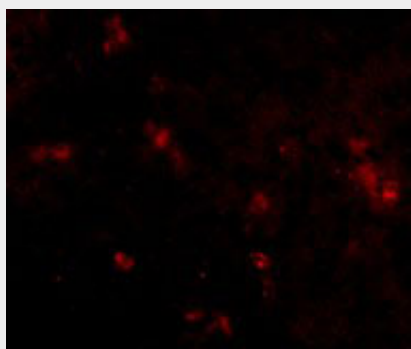
## SYPL2 Antibody - Images



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 Ca<sup>2+</sup> signaling by regulating the process of store-operated Ca<sup>2+</sup> entry and interacts with ryanodine receptor (RyR), thereby influencing intracellular Ca<sup>2+</sup> homeostasis through changes in the RyR/Ca<sup>2+</sup> release function. Co-expression of SYPL2 and RyR in cultured cells leads to apoptotic cell death resulting from the depletion of Ca<sup>2+</sup> 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.