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SPRYD2 Antibody
Catalog # ASC11347

Specification

SPRYD2 Antibody - Product Information

Application	**WB, IHC, IF**
Primary Accession	Q8N3K9
Other Accession	NP_705838, 62241003
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**SPRYD2 antibody can be used for detection of SPRYD2 by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.**

SPRYD2 Antibody - Additional Information

Gene ID **202333**

Target/Specificity
CMYA5; SPRYD2 antibody is predicted to not cross-react with other SPRYD protein family members. At least four isoforms of SPRYD2 are known to exist.

Reconstitution & Storage
SPRYD2 antibody can be stored at 4℃ for three months and -20℃, 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
SPRYD2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

SPRYD2 Antibody - Protein Information

Name CMYA5

Synonyms C5orf10, DTNBP2, SPRYD2, TRIM76

Function
May serve as an anchoring protein that mediates the subcellular compartmentation of protein kinase A (PKA) via binding to PRKAR2A (By similarity). May function as a repressor of calcineurin-mediated transcriptional activity. May attenuate calcineurin ability to induce slow-fiber gene program in muscle and may negatively modulate skeletal muscle regeneration (By similarity). Plays a role in the assembly of ryanodine receptor (RYR2) clusters in striated muscle (By similarity).

Cellular Location
Nucleus {ECO:0000250|UniProtKB:A0A286XF80}. Sarcoplasmic reticulum {ECO:0000250|UniProtKB:A0A286XF80}. Cytoplasm {ECO:0000250|UniProtKB:Q70KF4}. Cytoplasm, perinuclear region {ECO:0000250|UniProtKB:A0A286XF80}. Cytoplasm, myofibril, sarcomere, M line. Note=Found predominantly at the periphery of the nucleus but also throughout the cell. Localized in lysosomes (By similarity). In skeletal muscles, localizes along myofiber periphery, at costameres (By similarity). Predominantly flanks Z-disks (By similarity). Occasionally present at the M-band level Colocalized with RYR2 in the sarcoplasmic reticulum (By similarity) {ECO:0000250|UniProtKB:A0A286XF80}

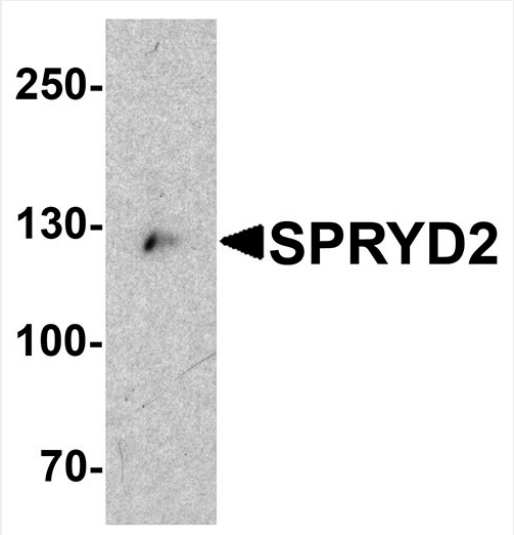
Tissue Location
Expressed in skeletal muscle; at a strong level and in heart.

SPRYD2 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 Cytomety
- Cell Culture

SPRYD2 Antibody - Images



Western blot analysis of SPRYD2 in mouse heart tissue lysate with SPRYD2 antibody at 1 µg/mL.

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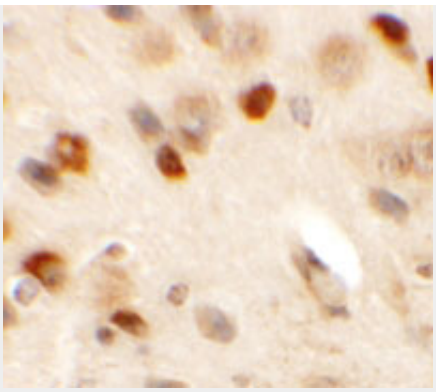
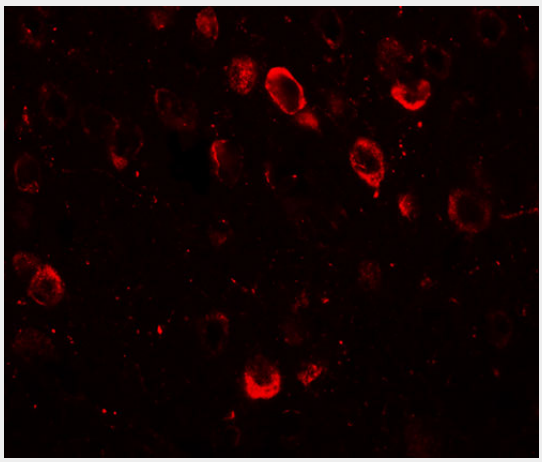


Immunohistochemistry of SPRYD2 in mouse brain tissue with SPRYD2 antibody at 2.5 µg/mL.



Immunofluorescence of SPRYD2 in mouse brain tissue with SPRYD2 antibody at 20 µg/mL.

SPRYD2 Antibody - Background

SPRYD2 Antibody: SPRYD2, also known as Myospryn, was originally identified as the muscle-specific partner of dysbindin and as a Mef-2 target gene. It is a large scaffolding protein localized to the Z-disc/costamere region of striated muscle. SPRYD2 includes a noncanonical tripartite motif (TRIM-like) that lacks the RING domain but consists of a B-box coiled coil (BBC), fibronectin 3 (FN3) repeats, and SPRY domains. SPRYD2 interacts with desmin and calcineurin, and it has been suggested to play a role in the biogenesis of lysosome and negatively regulates slow-fiber-type transformation and skeletal muscle regeneration. SPRYD2 is dysregulated in Duchenne muscular dystrophy.

SPRYD2 Antibody - References

Benson MA, Tinsley CL, Blake DJ. Myospryn is a novel binding partner for dysbindin in muscle. J. Biol. Chem. 2004; 279:10450-8.
Sarparanta J. Biology of myospryn: what's known? J. Muscle Res. Cell Motil. 2008; 29:177-80
Durham JT, Brand OM, Arnold M, et al. Myospryn is a direct transcriptional target for MEF2A that encodes a striated muscle, alpha-actinin-interacting, costamere-localized protein. J. Biol. Chem. 2006; 281:6841-9
Kielbasa OM, Reynolds JG, Wu CL, et al. Myospryn is a calcineurin-interacting protein that negatively modulates slow-fiber-type transformation and skeletal muscle regeneration. FASEB J. 2011 epub.