10320 Camino Santa Fe, Suite G
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CSRP3 Antibody (Internal)
Goat Polyclonal Antibody
Catalog # ALS14580

Specification

CSRP3 Antibody (Internal) - Product Information

Application	**WB, IHC**
Primary Accession	P50461
Reactivity	**Human, Mouse, Rat, Rabbit, Hamster, Monkey, Pig, Chicken, Horse, Bovine, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Calculated MW	**21kDa KDa**

CSRP3 Antibody (Internal) - Additional Information

Gene ID 8048

Other Names
Cysteine and glycine-rich protein 3, Cardiac LIM protein, Cysteine-rich protein 3, CRP3, LIM domain protein, cardiac, Muscle LIM protein, CSRP3, CLP, MLP

Target/Specificity
Human CSRP3.

Reconstitution & Storage
Store at -20°C. Minimize freezing and thawing.

Precautions
CSRP3 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

CSRP3 Antibody (Internal) - Protein Information

Name CSRP3

Synonyms CLP, MLP

Function
Positive regulator of myogenesis. Acts as a cofactor for myogenic bHLH transcription factors such as MYOD1, and probably MYOG and MYF6. Enhances the DNA-binding activity of the MYOD1:TCF3 isoform E47 complex and may promote formation of a functional MYOD1:TCF3 isoform E47:MEF2A complex involved in myogenesis (By similarity). Plays a crucial and specific role in the organization of cytosolic structures in cardiomyocytes. Could play a role in mechanical stretch sensing. May be a scaffold protein that promotes the assembly of interacting proteins at Z-line structures. It is essential for calcineurin anchorage to the Z line. Required for stress-induced calcineurin-NFAT activation (By similarity). The role in regulation of cytoskeleton dynamics by association with CFL2 is reported conflictingly: Shown to enhance CFL2-mediated F-actin depolymerization dependent on

the CSRP3:CFL2 molecular ratio, and also shown to reduce the ability of CLF1 and CFL2 to enhance actin depolymerization (PubMed:19752190, PubMed:24934443). Proposed to contribute to the maintenance of muscle cell integrity through an actin-based mechanism. Can directly bind to actin filaments, cross-link actin filaments into bundles without polarity selectivity and protect them from dilution- and cofilin-mediated depolymerization; the function seems to involve its self- association (PubMed:24934443). In vitro can inhibit PKC/PRKCA activity (PubMed:27353086). Proposed to be involved in cardiac stress signaling by down-regulating excessive PKC/PRKCA signaling (By similarity).

Cellular Location
Nucleus {ECO:0000250|UniProtKB:P50463}. Cytoplasm. Cytoplasm, cytoskeleton Cytoplasm, myofibril, sarcomere, Z line Cytoplasm, myofibril, sarcomere Note=Nucleocytoplasmic shuttling protein. Mainly cytoplasmic. In the Z line, found associated with GLRX3 (By similarity) {ECO:0000250|UniProtKB:P50462, ECO:0000250|UniProtKB:P50463}

Tissue Location
Cardiac and slow-twitch skeletal muscles. Isoform 2 is expressed in striated muscle. Isoform 2 is specifically expressed at higher levels in patients with neuromuscular diseases, such as limb-girdle muscular dystrophy 2A (LGMD2A), Duchenne muscular dystrophy (DMD) and dermatomyositis (PubMed:24860983)

CSRP3 Antibody (Internal) - 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

CSRP3 Antibody (Internal) - Images

Antibody (0.01 ug/ml) staining of Rat Heart lysate (35 ug protein in RIPA buffer).

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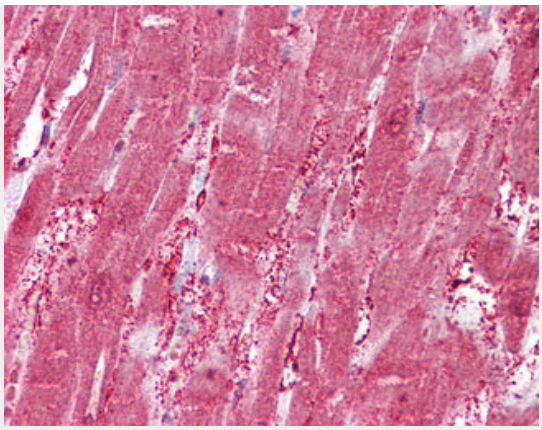
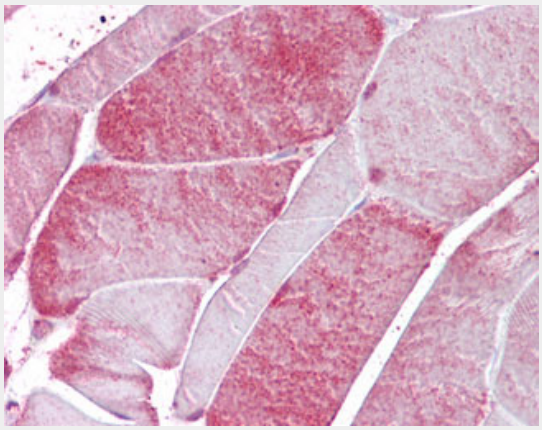


Anti-CSRP3 antibody IHC of human heart.



Anti-CSRP3 antibody IHC of human skeletal muscle.

CSRP3 Antibody (Internal) - Background

Positive regulator of myogenesis. Plays a crucial and specific role in the organization of cytosolic structures in cardiomyocytes. Could play a role in mechanical stretch sensing. May be a scaffold protein that promotes the assembly of interacting proteins at Z-line structures. It is essential for calcineurin anchorage to the Z line. Required for stress-induced calcineurin-NFAT activation (By similarity).

CSRP3 Antibody (Internal) - References

Fung Y.W.,et al.Genomics 28:602-603(1995).
Medvedev A.,et al.Submitted (MAR-1996) to the EMBL/GenBank/DDBJ databases.
Yasunaga S.,et al.Submitted (OCT-1996) to the EMBL/GenBank/DDBJ databases.
Chen K.H.,et al.Submitted (JAN-1999) to the EMBL/GenBank/DDBJ databases.
Schallus T.,et al.FEBS Lett. 583:1017-1022(2009).