

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.

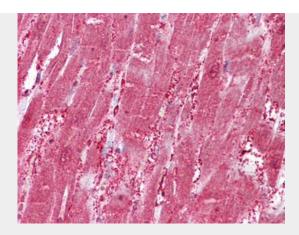
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CSRP3 Antibody (Internal) - Images

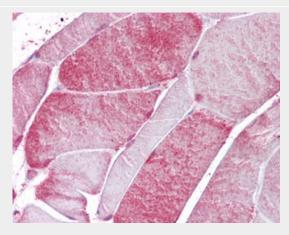


Antibody (0.01 ug/ml) staining of Rat Heart lysate (35 ug protein in RIPA buffer).





Anti-CSRP3 antibody IHC of human heart.



Anti-CSRP3 antibody IHC of human skeletal muscle.

CSRP3 Antibody (Internal) - Background

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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).