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Goat Anti-CSRP3 Antibody

Peptide-affinity purified goat antibody
Catalog # AF1283a

Specification

Goat Anti-CSRP3 Antibody - Product Information

Application	**WB, E**
Primary Accession	P50461
Other Accession	NP_003467, 8048, 13009 (mouse), 117505 (rat)
Reactivity	**Human, Mouse, Rat**
Predicted	**Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**20969**

Goat Anti-CSRP3 Antibody - 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

Dilution
WB~~1:1000
E~~N/A

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-CSRP3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-CSRP3 Antibody - 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)

Goat Anti-CSRP3 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

Goat Anti-CSRP3 Antibody - Images

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AF1283a (0.01 µg/ml) staining of Rat Heart lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-CSRP3 Antibody - Background

This gene encodes a member of the CSRP family of LIM domain proteins, which may be involved in regulatory processes important for development and cellular differentiation. The LIM/double zinc-finger motif found in this protein is found in a group of proteins with critical functions in gene regulation, cell growth, and somatic differentiation. Mutations in this gene are thought to cause heritable forms of hypertrophic cardiomyopathy (HCM) and dilated cardiomyopathy (DCM) in humans. Alternatively spliced transcript variants with different 5' UTR, but encoding the same protein, have been found for this gene.

Goat Anti-CSRP3 Antibody - References

Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.
A novel custom resequencing array for dilated cardiomyopathy. Zimmerman RS, et al. Genet Med, 2010 May. PMID 20474083.
Common susceptibility variants examined for association with dilated cardiomyopathy. Rampersaud E, et al. Ann Hum Genet, 2010 Mar. PMID 20201937.
Gene-centric association signals for lipids and apolipoproteins identified via the HumanCVD BeadChip. Talmud PJ, et al. Am J Hum Genet, 2009 Nov. PMID 19913121.
The role of Lamin A/C mutations in Danish patients with idiopathic dilated cardiomyopathy. M□ller DV, et al. Eur J Heart Fail, 2009 Nov. PMID 19875404.