

MYOZAP Antibody

Catalog # ASC11294

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	P0CAP1
Other Accession	NP_001018110 , 70166414
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	54206
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	MYOZAP antibody can be used for detection of MYOZAP by Western blot at 1 - 2 μ g/mL. Antibody can also be used for immunohistochemistry starting at 5 μ g/mL. For immunofluorescence start at 20 μ g/mL.

Additional Information

Gene ID	100820829
Other Names	Myocardial zonula adherens protein, GRINL1A upstream protein, Gup, MYZAP, MYOZAP
Target/Specificity	GCOM1; Multiple isoforms of MYOZAP are known to exist.
Reconstitution & Storage	MYOZAP 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	MYOZAP Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MYZAP
Synonyms	MYOZAP
Function	Plays a role in cellular signaling via Rho-related GTP- binding proteins and subsequent activation of transcription factor SRF (By similarity). Targets TJP1 to cell junctions. In cortical neurons, may play a role in glutaminergic signal transduction through interaction with the NMDA receptor subunit GRIN1 (By similarity).
Cellular Location	Cytoplasm, cytoskeleton {ECO:0000250 UniProtKB:Q5EB94}. Cell membrane

{ECO:0000250|UniProtKB:Q5EB94}; Peripheral membrane protein
 {ECO:0000250|UniProtKB:Q5EB94}; Cytoplasmic side
 {ECO:0000250|UniProtKB:Q5EB94}. Cytoplasm, myofibril, sarcomere, I band
 {ECO:0000250|UniProtKB:Q5EB94}. Cytoplasm, myofibril, sarcomere, Z line
 {ECO:0000250|UniProtKB:Q5EB94}. Cell junction Note=Detected predominantly at the intercalated disk in cardiomyocytes, and at low levels on sarcomeric Z disks. Colocalizes with F-actin Colocalizes with cortical actin.
 {ECO:0000250|UniProtKB:Q5EB94}

Tissue Location

Detected in heart, liver, skeletal muscle, placenta, small intestine, lung, prostate and testis. Expressed in arrector pili muscle (at protein level) (PubMed:29034528)

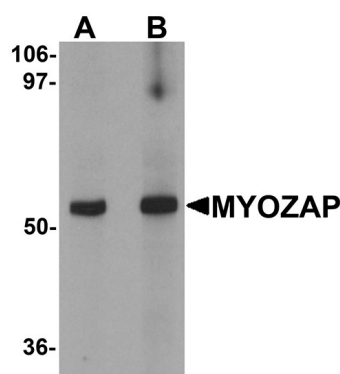
Background

MYOZAP Antibody: MYOZAP, also known as GRINL1A, is a 54 kDa highly conserved cardiac protein. It is strongly expressed in the heart and lung and is a novel component of intercalated disc. MYOZAP interacts with myosin phosphatase-RhoA interacting protein (MRIP) and acts as an activator of Rho-dependent SRF signaling. Knockdown study in zebrafish results in cardiomyopathy with severe dysfunction. The MYOZAP gene is part of a complex transcript unit that includes the gene for glutamate receptor, ionotropic, N-methyl D-aspartate-like 1A (GRINL1A). Transcription of this gene occurs at an upstream promoter, with two different groups of alternatively spliced variants: Gup for GRINL1A upstream transcripts and Gcom for GRINL1A combined transcripts.

References

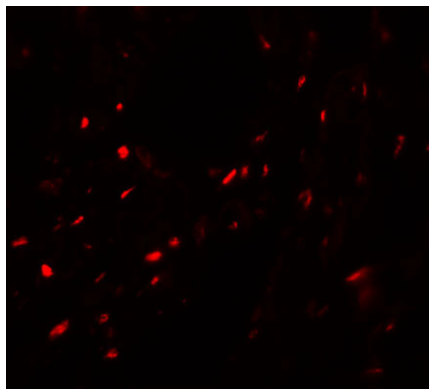
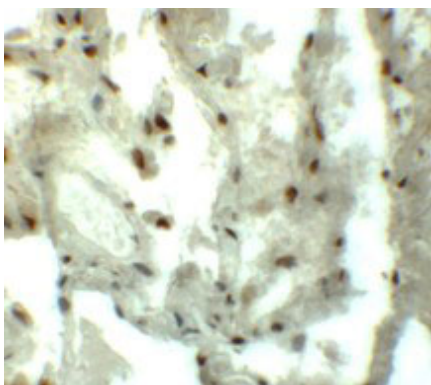
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 Seeger TS, Frank D, Rohr C, et al. Myozap, a novel intercalated disc protein, activates serum response factor-dependent signaling and is required to maintain cardiac function in vivo. *Circ. Res.* 2010; 106:880-90.
 Roginski RS, Mohan Raj BK, Birditt B, et al. The human GRINL1A gene defines a complex transcription unit, an unusual form of gene organization in eukaryotes. *Genomics* 2004; 84:265-76.

Images



Western blot analysis of MYOZAP in rat kidney tissue lysate with MYOZAP antibody at (A) 1 and (B) 2 µg/mL.

Immunohistochemistry of MYOZAP in human lung tissue with MYOZAP antibody at 5 µg/mL.



Immunofluorescence of MYOZAP in human lung tissue with MYOZAP antibody at 20 $\mu\text{g/mL}$.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.