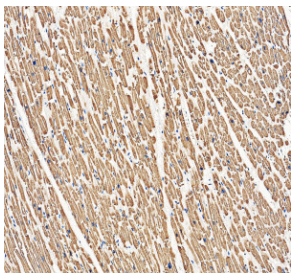
MYL2 Antibody / Myosin Regulatory Light Chain 2 Polyclonal Antibody (FY13066)

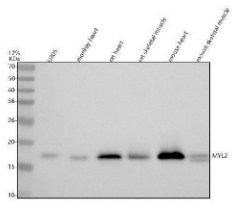
Catalog No.	Formulation	Size
FY13066	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Species Reactivity	Human, Monkey, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	P10916
Applications	Western Blot: 0.25-0.5ug/ml Immunohistochemistry (FFPE): 2-5ug/ml
Limitations	This MYL2 Antibody / Myosin Regulatory Light Chain 2 Polyclonal Antibody is available for research use only.



MYL2 Antibody by IHC in Human Cardiac Muscle Immunohistochemistry of FFPE human cardiac muscle sections using MYL2 Antibody at 2 ug/ml. Strong cytoplasmic staining is visible throughout the cardiomyocytes, with labeling following the organization of the cardiac muscle fibers. The staining pattern produced by this Myosin Regulatory Light Chain 2 Polyclonal Antibody is consistent with the localization of MYL2 within the contractile apparatus.



MYL2 Antibody by WB in Cardiac and Skeletal Muscle Western blot testing of MYL2 Antibody at 0.5 ug/ml with human heart (lane 1), human skeletal muscle (lane 2), monkey heart (lane 3), rat heart (lane 4), mouse heart (lane 5) and mouse skeletal muscle (lane 6) lysates. This Myosin Regulatory Light Chain 2 Polyclonal Antibody detects a prominent band at approximately 19 kDa across the tested samples, consistent with the expected molecular weight of MYL2. Detection in human, monkey, rat and mouse lysates supports recognition of the target across multiple species.

Description

MYL2 Antibody detects myosin regulatory light chain 2, a contractile protein associated with myosin heavy chains in striated muscle and commonly known as MLC2 or MLC-2v. MYL2 is positioned within the neck region of the myosin motor, where it contributes to the structural stability and mechanical properties of myosin. The protein has a particularly important role in cardiac muscle and participates in regulating the interaction between myosin and actin during contraction.

MYL2 function is modulated by phosphorylation of the regulatory light chain. Changes in phosphorylation can influence the orientation and mobility of myosin heads, cross-bridge cycling, myofilament calcium sensitivity and force generation. This regulatory mechanism allows cardiac muscle to modify its contractile properties in response to physiological signals and provides an important link between cellular signaling and the mechanical activity of the sarcomere.

In addition to its role in mature muscle contraction, MYL2 participates in cardiac development and organization of the contractile apparatus. Expression of the protein is associated with differentiated cardiomyocytes and formation of functional myofibrils. MYL2 is consequently studied as part of the molecular program governing cardiomyocyte differentiation, cardiac maturation and development of effective contractile function.

Variants in the MYL2 gene have been associated with inherited cardiac disorders, including hypertrophic and dilated cardiomyopathies. Alterations affecting regulatory light chain structure or function can disrupt normal sarcomere mechanics and influence the relationship between calcium signaling and contractile force. Investigation of MYL2 therefore contributes to understanding how changes in individual myofilament proteins can lead to impaired cardiac performance and pathological remodeling.

MYL2 provides a useful target for studying the relationship between sarcomere organization, myosin regulation and cardiac physiology. Its functions connect molecular events within the contractile apparatus to broader mechanisms controlling muscle performance and adaptation. NSJ Bioreagents offers this Myosin Regulatory Light Chain 2 Polyclonal Antibody for research into these processes. A MYL2 Antibody can support studies of cardiac and skeletal muscle biology, myofilament regulation, cardiomyocyte differentiation and mechanisms underlying cardiomyopathy.

For an antibody validated by IHC, WB and FACS, see our Myosin Light Chain 2 Antibody.

Application Notes

Optimal dilution of the MYL2 Antibody / Myosin Regulatory Light Chain 2 Polyclonal Antibody should be determined by the researcher.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human Myosin Light Chain 2/MLC-2V/MYL2 was used as the immunogen for the MYL2 antibody.

Storage

After reconstitution, the MYL2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Myosin Light Chain 2 antibody, MLC2 antibody, MLC-2 antibody, MLC-2v antibody, Myosin Light Chain 2V antibody, Ventricular Myosin Light Chain 2 antibody

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