

Product Datasheet

MRCL3 [p Ser19, p Ser20] Antibody - BSA Free NB100-1687

Unit Size: 0.05 mg

Store at -20C short term. Aliquot and store at -80C long term. Avoid freeze-thaw cycles.

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NB100-1687

MRCL3 [p Ser19, p Ser20] Antibody - BSA Free

Product Information	
Unit Size	0.05 mg
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at -20C short term. Aliquot and store at -80C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.01% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Product Description	
Description	<p>This affinity purified antibody is directed against the regulatory light chain of smooth and non-muscle myosin. The product was affinity purified from monospecific antiserum by immunoaffinity purification. Antiserum was first purified against the phosphorylated form of the immunizing peptide. The resultant affinity purified antibody was then cross-adsorbed against the non-phosphorylated form of the immunizing peptide</p> <p>Store vial at -20C prior to opening. Aliquot contents and freeze at -20C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4C as an undiluted liquid. Dilute only prior to immediate use.</p>
Host	Rabbit
Gene ID	10627
Gene Symbol	MYL12A
Species	Human, Mouse
Reactivity Notes	<p>This phosphospecific polyclonal antibody is specific for the phosphorylated pS19/pS20 form of the protein, depending on the source origin of the protein. Reactivity with non-phosphorylated myosin light chain is less than 1% by ELISA. Cross reactivity is expected with myosin light chain from human and mouse. Reactivity with the protein from other species has not been determined. However, the sequence of the immunogen is nearly identical in mammalian and avian species. BLAST search analysis was used to determine that the smooth and non-muscle forms of myosin regulatory light chain have identical sequences. Cross reactivity is expected.</p>

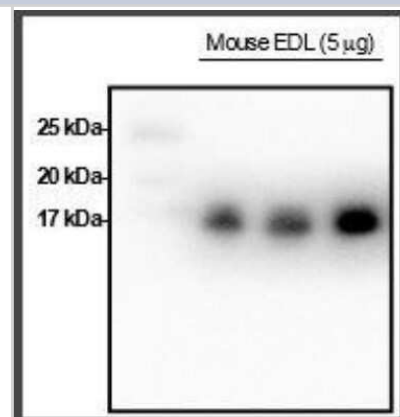
Specificity/Sensitivity	This affinity purified antibody is directed against the regulatory light chain of smooth and non-muscle myosin. The antibody is phosphospecific and detects monophosphorylated and diphosphorylated forms of the protein. The resultant affinity purified antibody was then cross-adsorbed against the non-phosphorylated form of the immunizing peptide. This phosphospecific polyclonal antibody is specific for the phosphorylated pS19/pS20 form of the protein, depending on the source origin of the protein. Reactivity with non-phosphorylated myosin light chain is less than 1% by ELISA. Cross reactivity is expected with myosin light chain from human and mouse. Reactivity with the protein from other species has not been determined. However, the sequence of the immunogen is nearly identical in mammalian and avian species. BLAST search analysis was used to determine that the smooth and non-muscle forms of myosin regulatory light chain have identical sequences. Cross reactivity is expected.
Immunogen	Human Myosin Light Chain phospho peptide corresponding to a region near the amino terminus of the human smooth/non-muscle form of myosin regulatory light chain conjugated to Keyhole Limpet Hemocyanin (KLH). (Uniprot: P19105)

Product Application Details

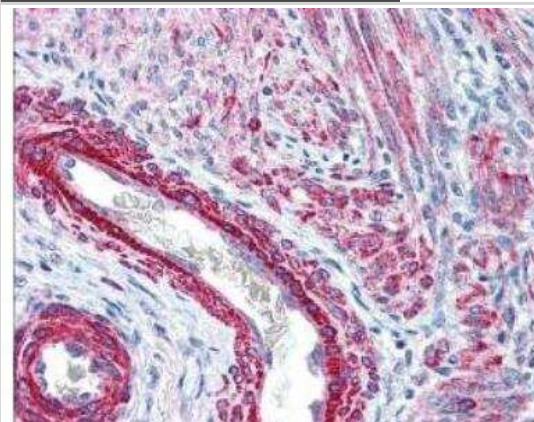
Applications	Western Blot, ELISA, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation
Recommended Dilutions	Western Blot 1:500-1:2000, ELISA 1:10000-1:30000, Immunohistochemistry 2.5 ug/ml, Immunoprecipitation 1:100, Immunohistochemistry-Paraffin 1:10-1:500
Application Notes	This product was tested by ELISA, immunohistochemistry, and western blotting. Immunoblotting was used to show reactivity with unstimulated and stimulated cardiac myocytes, 3T3 whole cell lysates, and regulatory light chain and smooth muscle phospho recombinant protein. The antibody was also reactive with the phosphorylated form of the immunizing peptide and minimally reactive with the non-phosphorylated form of the immunizing peptide. Although not tested, this antibody is likely functional by immunoprecipitation.

Images

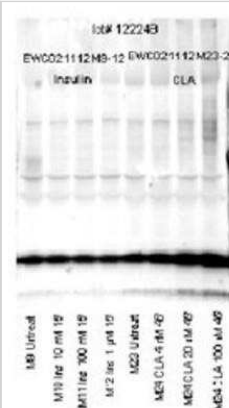
Western Blot: MRCL3 [p Ser19, p Ser20] Antibody [NB100-1687] - This antibody has been shown to cross-react with mouse skeletal muscle regulatory light chain (Lai et al., 2016. Am J Physiol Endocrinol Metab), and is shown to positively react with mouse EDL muscle here. This image was submitted via customer Review.



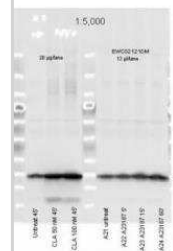
Immunohistochemistry: MRCL3 [p Ser19, p Ser20] Antibody [NB100-1687] - Used at 2.5 ug/ml to detect signal in a variety of tissues including multi-human, multi-brain and multi-cancer slides. This image shows strong staining of both vascular and myometrial smooth muscle cells of the uterus. Tissue was formalin-fixed and paraffin embedded. The image shows localization of the antibody as the precipitated red signal, with a hematoxylin purple nuclear counterstain.



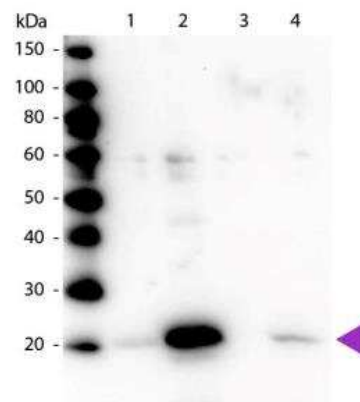
Western Blot: MRCL3 [p Ser19, p Ser20] Antibody [NB100-1687] - Affinity purified phosphospecific antibody to monophosphorylated regulatory light chain of smooth and non-muscle Myosin at pS19 was used at a 1:1000 dilution to detect myosin light chain by Western blot. Approximately 12 ul of a mouse cardiac myocyte lysate was loaded on a 4-20% Criterion gel for SDS-PAGE. Samples were either mock treated or insulin or CLA treated according as indicated. After washing, a 1:5,000 dilution of HRP conjugated Gta- Rabbit IgG (611-103-122) preceded color development using Amersham's substrate system. Other detection methods will yield similar results.



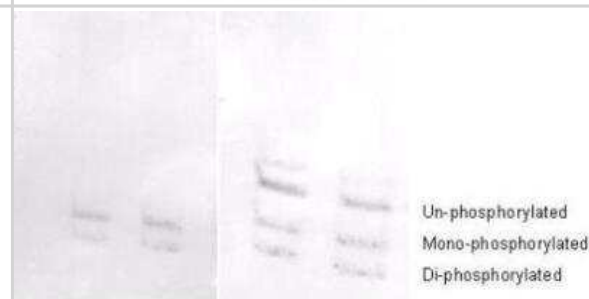
Western Blot: MRCL3 [p Ser19, p Ser20] Antibody [NB100-1687] - Used at a 1:5000 dilution to detect myosin light chain by Western blot. Either 13 or 20 l of a mouse cardiac myocyte lysate was loaded on a 4-20% Criterion gel for SDS-PAGE. Samples were either mock-treated or CLA-treated, as indicated. After washing, a 1:5,000 dilution of HRP conjugated Gt-a-Rabbit IgG preceded color development using Amersham's substrate system.



Western Blot: MRCL3 [p Ser19, p Ser20] Antibody [NB100-1687] - Lane 1: Regulatory Light Chain Non-Phospho recombinant protein. Lane 2: Regulatory Light Chain Phospho recombinant protein. Lane 3: Smooth Muscle Non-Phospho recombinant protein. Lane 4: Smooth Muscle Phospho recombinant protein. Load: 50 ng per lane. Primary antibody: Myosin pS19/pS20 primary antibody at 1:1,000 overnight at 4C. Secondary antibody: Peroxidase rabbit secondary antibody at 1:40,000 for 60 min at RT. Blocking: incubated with blocking buffer for 30 min at RT. Predicted/Observed size: 20 kDa, 20 kDa for Regulatory Light Chain Phospho. Other band(s): None.



Western Blot: MRCL3 [p Ser19, p Ser20] Antibody [NB100-1687] - Used at a 1:1000 dilution to detect myosin light chain by Western blot on 3T3 cell lysates. A standard urea/glycerol gel without SDS was used to separate phospho forms of regulatory light chain according to mass to charge ratios. In Panel A, reactivity of phosphospecific antibody is shown. In Panel B, reactivity of commercially available pan reactive antibody that detects both unphosphorylated and phosphorylated forms of regulatory light chain is shown. phosphospecific antibody detects both monophosphorylated (pSer20 Mono-P-RLC) and diphosphorylated (pThr19-pSer20 Di-P-RLC) regulatory light chain.





Novus Biologicals USA

10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada

21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd

19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information

www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

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HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
NBP1-72407-100ug	Recombinant Human MRCL3 His Protein

Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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