Datasheet for ABIN5596872

anti-Myosin antibody (N-Term, pSer19, pSer20)

2 Images

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Overview

Quantity:	100 µL
Target:	Myosin
Binding Specificity:	N-Term, pSer19, pSer20
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Myosin antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunoprecipitation (IP)

Product Details

Immunogen:	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). Immunogen Type: Peptide
Cross-Reactivity (Details):	Anti-Myosin pS19/pS20 antibody is directed against the regulatory light chain of smooth and non-muscle myosin. This antiserum is phosphospecific and detects monophosphorylated and diphosphorylated forms 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.

Target Details

Target:	Myosin
Abstract:	Myosin Products
Background:	Synonyms: Myosin regulatory light chain 12A, Myosin regulatory light chain MRLC3, Myosin regulatory light chain 2, nonsarcomeric, Myosin RLC, MLC-2B, Background: Myosin is the major component of thick muscle filaments, and is a long asymmetric molecule containing a globular head and a long tail. The molecule consists of two heavy chains each ~200,000 daltons, and four light chains each ~16,000 - 21,000 daltons. Activation of smooth and cardiac muscle primarily involves pathways that increase calcium levels and myosin phosphorylation, resulting in contraction. Myosin light chain phosphatase acts to regulate muscle contraction by dephosphorylating activated myosin light chain. This antibody is specific for the phosphorylated form of myosin light chain. The selected peptide sequence used to generate the polyclonal antibody is located near the amino terminal end of the polypeptide corresponding to the smooth/non-muscle form of myosin regulatory light chain found in cardiac myocytes in addition to smooth and non-muscle cells. This sequence differs from that of the sarcomeric/cardiac form of myosin regulatory light chain that has a different sequence around the phosphorylation site. Human and mouse have almost identical sequences. In human the phosphorylation site is pS19, while in mouse the site maps to pS20. Gene Name: MYL12A
Gene ID:	10627
UniProt:	P19105

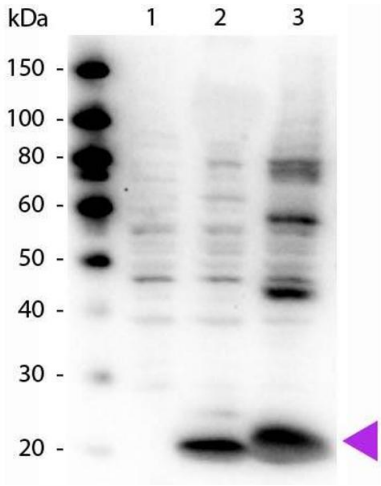
Application Details

Application Notes:	Immunohistochemistry Dilution: 2.5 µg/mL Application Note: Anti-Myosin pS19/pS20 phospho specific polyclonal antibody was tested by ELISA, immunohistochemistry and immunoblotting. Immunoblotting was used to show reactivity with unstimulated and stimulated cardiac myocytes. 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. Western Blot Dilution: 1:1,000 - 1:5,000 Immunoprecipitation Dilution: 1:100 ELISA Dilution: 1:5,000 - 1:20,000
Restrictions:	For Research Use only

Handling

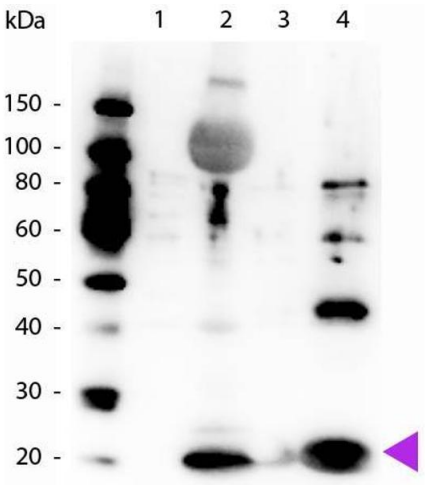
Format:	Liquid
Concentration:	70 mg/mL
Buffer:	Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 Stabilizer: None
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C 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 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiry Date:	12 months

Images



Western Blotting

Image 1. Western Blot of Rabbit Anti-Myosin pS19/pS20 antibody. Lane 1: HeLa whole cell lysate. Lane 2: HeLa whole cell lysate + smooth muscle recombinant phospho protein. Lane 3: HeLa whole cell lysate + regulatory light chain recombinant phospho protein. Load: 10 ug of whole cell lysate + 1.0 ug of recombinant protein. Primary antibody: Mysoin pS19/pS20 antibody at 1.0 ug/mL overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody at 1:40,000 for 30 min at RT. Blocking: ABIN925618 for 30 min at RT. Predicted/Observed size: 20 kDa, 20 kDa for RLC.



Western Blotting

Image 2. Western Blot of Rabbit Anti-Myosin pS19/pS20 antibody. Lane 1: Smooth muscle recombinant non-phospho protein. Lane 2: Smooth muscle recombinant phospho protein. Lane 3: Regulatory light chain recombinant non-phospho protein. Lane 4: Regulatory light chain recombinant phospho protein. Load: 1.0 ug of recombinant non-phospho protein, 5.0 ug of recombinant phospho protein. Primary antibody: Mysoin pS19/pS20 antibody at 1.0 ug/mL overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody at 1:40,000 for 30 min at RT. Blocking: ABIN925618 for 30 min at RT. Predicted/Observed size: 20 kDa, 20 kDa for RLC.

