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# Polyclonal Antibody to Myosin heavy chain - Aff - Purified

**Catalog No.:** AP33259PU-N

**Quantity:** 0.1 ml

**Background:** Myosin heavy chain is an actin-based motor protein with an approximate molecular weight of 223 kD. Myosin heavy chain can be split into 1 light meromysin and 1 heavy meromysin chain (and further into 2 globular subfragments and 1 rod-shaped subfragment). This protein is highly expressed in muscle. Motor proteins that convert chemical energy derived from ATP hydrolysis into mechanical force that drives motile processes such as cytokinesis, vesicular transport, and cellular locomotion. Myosin heavy chain is modified by acetylation in cysteine residues in the S1 domain for myosin ATPase activity. Muscle myosin is a hexameric protein consisting of 2 heavy chain subunits and 2 alkali light chain subunits and 2 regulatory light chain subunits that forms filaments.
**Structure:** Actin-based motor protein, approximately 223 kD. Myosin heavy chain can be split into 1 light meromysin and 1 heavy meromysin chain (and further into 2 globular subfragments and 1 rod-shaped subfragment).
**Distribution:** Highly expressed in muscle.
**Function:** Motor proteins that convert chemical energy derived from ATP hydrolysis into mechanical force that drives motile processes such as cytokinesis, vesicular transport, and cellular locomotion.
**Regulation:** Cysteine residues in the S1 domain are alkylated for myosin ATPase activity.
**Modification:** Alkylation.
**Interaction:** Muscle myosin is a hexameric protein consisting of 2 heavy chain subunits and 2 alkali light chain subunits and 2 regulatory light chain subunits.

**Host / Isotype:** Rabbit / IgG

**Immunogen:** Recombinant.

**Format:**
**State:** Liquid purified IgG fraction
**Purification:** Antigen Affinity Chromatography
**Buffer System:** PBS, pH 7.2
**Preservatives:** 0.09% Sodium Azide
**Stabilizers:** 50% Glycerol

**Applications:**
**Immunofluorescence staining:** 1/100-1/400.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

**Molecular Weight:** 223 kDa

**Specificity:** This antibody reacts against 1960 aa length Myosin heavy chain.

**Species Reactivity:** **Tested:** Human, Rat.

**Storage:**

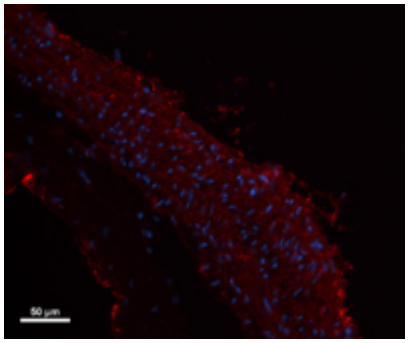
Upon receipt, store undiluted (in aliquots) at -20°C.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

**General Readings:**

1. Weiss A, et al. 1999. P. Natl. Acad. Sci. USA 96:2598.
2. Schiaffino S, Reggiani C. Molecular diversity of myofibrillar proteins: gene regulation and functional significance. Physiol Rev. 1996 Apr;76(2):371-423. PubMed PMID: 8618961.

**Pictures:**

Rat carotid artery frozen sections were stained with Poly6212, followed by anti-rabbit Alexa Fluor® 594 and DAPI staining.



Hela cells stained with purified rabbit polyclonal antibody against Myosin heavy chain (poly6212), followed by Cy3 conjugated Donkey anti-rabbit IgG and DAPI.