

**Mouse Anti-Myosin Skeletal Heavy Chain Fast/MYH1 [MY-32]: MC0317**

**Intended Use:** For Research Use Only

**Description:** Myosin, a 480kD protein that interacts with actin in muscle and non muscle cells, is composed of 2 identical heavy chains (about 200kD each) and 4 light chains (about 20kD each). Conventional myosin molecules consist of two major regions: tail (rod) and globular heads; they aggregate into filaments through the tail region and interact with actin and with adenosine triphosphate (ATP) through the head region. Multiple forms of myosin heavy chains exist in skeletal, smooth and cardiac muscle and in non-muscle tissues. A spectrum of skeletal muscle fiber types is found in adult skeletal muscles. The two major skeletal muscle fiber types are type I (slow-twitch) and type II (fast-twitch). Skeletal muscle type II fibers can be further subdivided into types IIa (fast red) and IIb (fast white).

**Specifications**

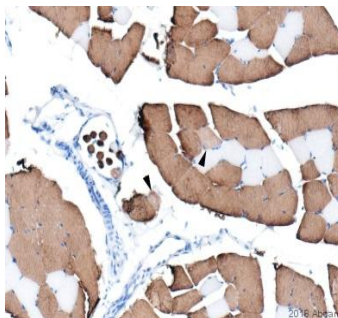
|               |                                                                                          |
|---------------|------------------------------------------------------------------------------------------|
| Clone:        | MY-32                                                                                    |
| Source:       | Mouse                                                                                    |
| Reactivity:   | Human, mouse, rat, rabbit, chicken, guinea pig, cow                                      |
| Isotype:      | IgG1                                                                                     |
| Immunogen:    | Rabbit muscle myosin                                                                     |
| Localization: | Cytoplasm                                                                                |
| Formulation:  | Antibody in PBS pH7.4, containing BSA and $\leq 0.09\%$ sodium azide (NaN <sub>3</sub> ) |
| Storage:      | Store at 2°- 8°C                                                                         |
| Applications: | IHC, ICC/IF, WB                                                                          |
| Package:      |                                                                                          |

| Description                                        | Catalog No. | Size |
|----------------------------------------------------|-------------|------|
| Myosin Skeletal Heavy Chain Fast/MYH1 Concentrated | MC0317      | 1 ml |

**IHC Procedure\***

|                           |                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------|
| Positive Control Tissue:  | Skeletal muscle                                                                     |
| Concentrated Dilution:    | 25-100                                                                              |
| Pretreatment:             | Tris EDTA pH9.0, 15 minutes Pressure Cooker or 30-60 minutes water bath at 95°-99°C |
| Incubation Time and Temp: | 30-60 minutes @ RT                                                                  |
| Detection:                | Refer to the detection system manual                                                |

\* Result should be confirmed by an established diagnostic procedure.



FFPE pig skeletal muscle stained with anti-MYH1 using DAB

**References:**

1. Formoterol attenuates increased oxidative stress and myosin protein loss in respiratory and limb muscles of cancer cachectic rats. Salazar-Degracia A, et al. PeerJ 5:e4109, 2017.
2. Mutation-specific effects on thin filament length in thin filament myopathy. Winter JM, et al. Ann Neurol 79:959-69, 2016.
3. Patel N, et al. Circular and longitudinal muscles shortening indicates sliding patterns during peristalsis and transient lower esophageal sphincter relaxation. Am J Physiol Gastrointest Liver Physiol 309:G360-7, 2015.

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Rev. A