**DESCRIPTION**

**Species Reactivity** Human

**Specificity** Detects Myosin Heavy Chain in human, mouse, rat and other mammalian, avian, and amphibian species.

**Source** Monoclonal Mouse IgG₂B Clone # MF20

**Purification** Protein A or G purified from hybridoma culture supernatant

**Immunogen** Chicken pectoralis-derived Myosin

**Conjugate** Allophycocyanin

**Excitation Wavelength:** 620-650 nm

**Emission Wavelength:** 660-670 nm

**Formulation** Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.

*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

**APPLICATIONS**

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

<table>
<thead>
<tr>
<th>Recommended Concentration</th>
<th>Sample</th>
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<tr>
<td>Intracellular Staining by Flow Cytometry</td>
<td>10 µL/10^⁶ cells</td>
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</table>

**DATA**

**Intracellular Staining by Flow Cytometry**

Detection of Myosin Heavy Chain in Three-day Differentiated C2C12 Mouse Cell Line by Flow Cytometry. Three-day differentiated C2C12 mouse myoblast cell line was stained with Mouse Anti-Human Myosin Heavy Chain APC-conjugated Monoclonal Antibody (Catalog # IC4470A, filled histogram) or isotype control antibody (Catalog # IC0041A, open histogram). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). View our protocol for Staining Intracellular Molecules.

**PREPARATION AND STORAGE**

**Shipping** The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** Protect from light. Do not freeze.

- 12 months from date of receipt, 2 to 8 °C as supplied.

**BACKGROUND**

Skeletal muscle Myosin or Myosin II is the motor protein that generates force to drive muscle contraction. It is a 520 kDa hexamer comprised of two heavy chains and four light chains. Myosin heavy chain is 220 kDa in size and consists of a long coiled-coil domain tail that mediates dimerization of the two heavy chains and a globular head region that mediates ATP-dependent sliding of Actin filaments. Myosin heavy chain can be proteolytically cleaved to produce heavy Meromyosin, which includes the S1 motor domain (head region) and first third of the coiled-coil domain, and light Meromyosin, which includes the C-terminal two thirds of the coiled-coil domain.