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: Fluorescein

Excitation Wavelength: 488 nm

Emission Wavelength: 515–545 nm (FITC)

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.

Recommended Concentration: Sample

Intracellular Staining by Flow Cytometry: 10 µL/10^6 cells See Below

DATA

Intracellular Staining by Flow Cytometry

Detection of Myosin Heavy Chain in C2C12 Mouse Cell Line by Flow Cytometry. Three-day differentiated C2C12 mouse myoblast cell line was stained with Mouse Anti-Human Myosin Heavy Chain Fluorescein-conjugated Monoclonal Antibody (Catalog # IC4470F, filled histogram) or isotype control antibody (Catalog # IC0041F, 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.