

DESCRIPTION

Specificity	Detects Myosin Heavy Chain in human, mouse, rat and other mammalian, avian, and amphibian species.
Source	Monoclonal Mouse IgG _{2B} Clone # MF20
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chicken pectoralis-derived Myosin
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

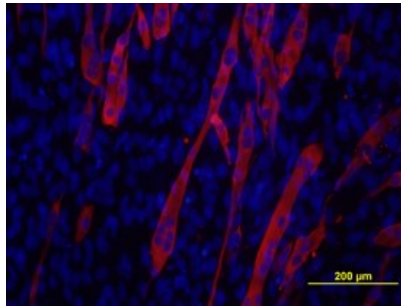
APPLICATIONS

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
Immunocytochemistry	8-25 µg/mL	See Below
Immunohistochemistry	5-25 µg/mL	See Below
Western Blot	Stains, C.I., <i>et al.</i> (2012) Chem Biol. 19 :210.	

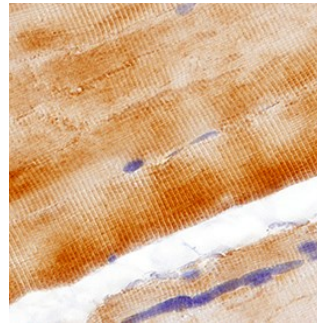
DATA

Immunocytochemistry



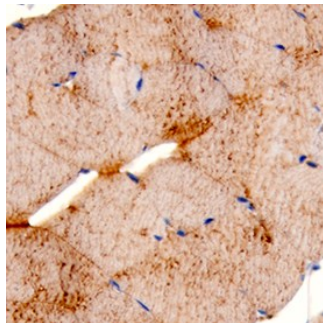
Myosin Heavy Chain in C2C12 Mouse Cell Line. Myosin Heavy Chain was detected in immersion fixed C2C12 mouse myoblast cell line using Mouse Anti-Human Myosin Heavy Chain Monoclonal Antibody (Catalog # MAB4470) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

Immunohistochemistry



Myosin Heavy Chain in Human Skeletal Muscle. Myosin Heavy Chain was detected in immersion fixed paraffin-embedded sections of human skeletal muscle using Mouse Anti-Myosin Heavy Chain Monoclonal Antibody (Catalog # MAB4470) at 5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to sarcolemma. View our protocol for [IHC Staining with VisUCyte HRP Polymer Detection Reagents](#).

Immunohistochemistry



Myosin Heavy Chain in Mouse Skeletal Muscle. Myosin Heavy Chain was detected in perfusion fixed frozen sections of mouse skeletal muscle using Mouse Anti-Myosin Heavy Chain Monoclonal Antibody (Catalog # MAB4470) at 5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to sarcolemma. View our protocol for [IHC Staining with VisUCyte HRP Polymer Detection Reagents](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.