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Product Information

Monoclonal Anti-Skeletal Myosin (FAST)

Clone MY-32

Mouse Ascites Fluid

Product No. **M 4276**

Monoclonal Anti-Skeletal Myosin (mouse IgG1 isotype) is derived from the hybridoma produced by the fusion of mouse myeloma cells and splenocytes from an immunized mouse. Rabbit muscle myosin was used as the immunogen.

Monoclonal Anti-Skeletal Myosin is specific for the myosin heavy chain using an immunoblotting technique with either human or animal skeletal muscle extracts or purified myosin preparations. The product does not stain human or animal cardiac or smooth muscle myosin or in cells grown by tissue culture (non-muscle myosin). It has been demonstrated on human skeletal muscle that the antibody stains the fast twitch (type II) isomyosin molecules. The product may be used for staining of human, rabbit, rat, mouse, bovine, chicken and guinea pig skeletal myosin.

Myosin is a 480,000 dalton protein known to interact with actin in muscle and in non-muscle cells. It contains two identical heavy chains (200,000 daltons each) and four light chains (15,000-26,000 daltons). Myosin molecules consist of two major regions: tails (rods) and heads; they aggregate into filaments through the tail region and interact with actin and with ATP through the head region. Multiple forms of myosin heavy chains exist for each muscle type-skeletal, cardiac, smooth and non-muscle isomyosin forms exist in different types of skeletal muscle, depending on the physiological function of the muscle. These are designated as type I (slow-twitch) and type II (fast-twitch). Type II fibers can be further subdivided into types IIA, IIB, and IIC.

Monoclonal Anti-Skeletal Myosin antibody to fast-twitch skeletal myosin may be used for detecting cross striated muscle differentiation in tumors. The antibody localizes an epitope on the myosin chain that is stable to the routine formalin-fixation and paraffin-embedding process. The antibody may be used with immunoperoxidase or immunofluorescent procedures on

formalin-fixed or frozen sections of skeletal muscle as well as with immunoblotting or dot immunobinding on muscle extracts or purified myosin preparations.

Reagents

The product is provided as ascites fluid with 0.1% sodium azide as a preservative.

Precautions

*Due to the sodium azide content a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazards and safe handling practices.

Storage

For continuous use, store at 2-8 °C for up to one month. For extended storage, solution may be frozen in working aliquots. Repeated freezing and thawing is **not** recommended. If slight turbidity occurs upon prolonged storage, clarify by centrifugation before use.

Product Profile

A minimum working dilution of 1:400 is determined by indirect immunofluorescent labeling of formalin-fixed, paraffin-embedded sections of human or animal skeletal muscle tissue preparation.

A minimum working dilution of 1:1,000 is determined by immunoblotting using rabbit leg muscle extract.

In order to obtain the best results, it is recommended that each individual user determine their optimal working dilution by titration assay.

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