

## Product Information

### Anti- $\alpha$ Actinin antibody, Mouse monoclonal

Clone BM-72.5, purified from hybridoma cell culture

Product Number **SAB4200813**

#### Product Description

Monoclonal Anti- $\alpha$  Actinin (mouse IgM isotype) is derived from the hybridoma BM-72.5 produced by the fusion of mouse myeloma cells and splenocytes from mice immunized with a cytoskeletal fraction of bovine mammary gland epithelium (BMGE) cultured cells. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents (Product Number ISO2). The antibody is purified from culture supernatant of hybridoma cells.

Monoclonal Anti- $\alpha$  Actinin specifically recognizes  $\alpha$  Actinin from human,<sup>1</sup> mouse,<sup>2</sup> rat,<sup>3</sup> chicken,<sup>4</sup> monkey, canine, and bovine origin. The antibody may be used in various immunochemical techniques including immunoblot<sup>1,2</sup> (~100 kDa), immunohistochemistry,<sup>3</sup> and Immunofluorescence.

Monoclonal Anti- $\alpha$  Actinin may be used for immunofluorescent localization of  $\alpha$  actinin in cultured cells and tissues, for immunofluorescent labeling of skeletal muscle (normal and pathological) in order to detect its organizational state, studies of membrane anchorage sites, and immunochemical identification of  $\alpha$  actinin by immunoblotting analysis.

$\alpha$  Actinin is an actin binding protein present in both muscle and non-muscle cells. It has a molecular mass of 100,000 daltons and forms dimers in solution. In normal skeletal muscle,  $\alpha$  actinin is associated with the z-discs that define muscle sarcomeres. In smooth muscle,  $\alpha$  actinin has been detected in dense bodies and plaques characteristic of the tissue. Immunofluorescent labeling of a large variety of cells using an antibody to  $\alpha$  actinin reveals extensive protein association with actin containing stress fibers, in particular with their membrane bound termini.

#### Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~1.0 mg/mL

#### Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

#### Storage/Stability

Store at -20 °C. For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

#### Product Profile

**Immunoblotting:** a working concentration of 0.5-1  $\mu$ g/mL is recommended using human HeLa cells extract.

**Immunofluorescence:** a working concentration of 5-10  $\mu$ g/mL is recommended using human foreskin fibroblast Hs68 cells.

**Note:** In order to obtain best results in various techniques and preparations, it is recommended to determine optimal working dilutions by titration test.

#### References

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