Product Information

# Anti-Migfilin Antibody, Mouse Monoclonal

Clone 43, Purified from Hybridoma Cell Culture

**SAB4200467**

## Product Description

Anti-Migfilin (mouse IgG1 isotype) is derived from the hybridoma 43 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a recombinant human migfilin (GeneID: 54751) fusion protein.[1] The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents (Cat. No. ISO2). The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

Anti-Migfilin recognizes human migfilin. The product may be used in several immunochemical techniques including immunoblotting (41 kDa), immunoprecipitation, immunocytochemistry and immunohistochemistry.[1-2]

Connections between the plasma membrane and the actin cytoskeleton are essential for maintaining tissue integrity and for controlling cell morphology and behavior**.** Dozens of components have been identified to be involved in such interactions. One of these components, Migfilin, is a widely expressed adaptor protein, consisting of an N-terminal filamin-binding domain, a central praline rich domain and three C-terminal LIM domains. The LIM domain binds to filamin and VASP and recruits migfilin to cell–matrix contacts in response to cell–matrix adhesion.[3] Migfilin translocates to the nucleus in a calcium regulated manner and binds to CSX/NKX2-5, promoting cardiomyocyte differentiation. Interestingly, mutations in NKX2-5 are involved in the pathogenesis of cardiac diseases causing human cardiac malformations and atrioventricular conduction abnormalities and its level is increased in cardiac hypertrophy.[4] In addition, migfilin activates Src via its proline-rich domain, linking cell-ECM adhesion to Src activation and survival signaling. This signaling is dysfunctional in multiple types of carcinoma cells, which likely contributes to aberrant Src activation and anoikis resistance in these cancerous cells.[5]

## Reagent

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

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

For extended storage, freeze at −20 °C in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, 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 0.1-0.2 µg/mL is recommended using A431 total cell extracts.

### Immunofluorescence

A working concentration of 20 µg/mL is recommended using A431 cells.

**Note**: In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration.

## References


1. Tu, Y., et al., *Cell,* **113**: 37-47 (2003).
2. Papachristou, D.J., et al., *Histopathol.,* **51**: 449- 508 (2007).
3. Wu, C., *J. Cell Sci.,* **118:** 659-664 (2005).
4. Brancaccio, M., et al., *Cardiovasc. Res.,* **70**: 422- 433 (2006).
5. Zhao, J., et al., *J. Biol. Chem.,* **284**: 34308-34320 (2009).


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