

3050 Spruce Street, St. Louis, MO 63103 USA Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757 email: techservice@sial.com sigma-aldrich.com

Product Information

Anti-Kindlin-2 antibody, Mouse monoclonal clone 3A3, purified from hybridoma cell culture

Catalog Number SAB4200525

Product Description

Anti-Kindlin-2 (mouse IgG1 isotype) is derived from the hybridoma 3A3 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a recombinant C-terminal region fusion protein of human Kindlin-2 (GeneID: 10979).¹ The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2. The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

Anti-Kindlin-2 recognizes human, monkey, bovine, dog rat and mouse kindlin-2. The product may be used in several immunochemical techniques including immunoblotting (~ 72 kDa), flow cytometry, immunoprecipitation, immunocytochemistry, and immunohistochemistry. 1-3

Kindlins, a family of focal adhesion proteins, are involved in attachment of the actin cytoskeleton to the plasma membrane and in integrin-mediated cellular processes.4 A member of this family, Kindlin-2 (referred to as Mig-2) has broad expression in all solid tissues of mesenchymal origin. Mouse Kindlin-2 knockout is embryonic lethal. The phenotype of Kindlin-2 knockdown in zebrafish embryos is consistent with defective integrin function, exerting a prominent effect on cardiac development. Human deficiencies of Kindlin-2 are predicted to be embryonic lethal similar to Kindlin-2 ablation in mice and zebrafish. Malignant transformation can alter the expression patterns of Kindlin-2 as has been reported in breast cancer cells and leiomyomas.5 Moreover, Kindlin-2 expression had a significant positive correlation with tumor stromal invasion, lymph node metastasis and poor overall survival.6

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 Material 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

 $\frac{Immunoblotting}{1.0\text{-}2.0~\mu\text{g/mL}} \ \text{is recommended using HeLa total cell extracts}.$

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).
- Shi, X., et al., J. Biol. Chem., 282, 20455-20466 (2007).
- 3. Papachristou, P., et al., *Histopathol.*, **51**, 499-508, 2007.
- Larjava, H., et al., EMBO reports, 9, 1203-1208 (2008).
- 5. Malinin, N.L., et al., *Blood.*, **115**, 4011-4017 (2010).
- Shen, Z., et al., Am. J. Surg., 203, 222-229 (2012).
 RC,GG,RC,PHC 04/21-1