

## Product Information

# Anti-Kindlin-1 antibody, Mouse monoclonal

Clone KN-4, purified from hybridoma cell culture

**SAB4200465**

## Product Description

Anti-Kindlin-1 (mouse IgG1 isotype) is derived from the hybridoma KN-4 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a synthetic peptide corresponding to a sequence close to the N-terminus of human Kindlin-1 (GeneID: 55612), conjugated to KLH. 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-Kindlin-1 recognizes mainly human, dog, hamster, and mouse Kindlin-1. The antibody recognizes Kindlin-1 isoform 1 (~ 77 kDa), isoform 2 (~ 60 kDa), and isoform 4 (~ 50 kDa), as major bands. The product may be used in several immunochemical techniques including immunoblotting, immunocytochemistry, immunoprecipitation, and flow cytometry. Staining of the Kindlin-1 band in immunoblotting is specifically inhibited by the immunizing protein.

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.<sup>1</sup> A member of this family, Kindlin-1 (also known as Unc-112 Related Protein 1 or URP1) is highly expressed in epithelial cells, including keratinocytes. A splice variant potentially producing a truncated protein has been detected in kidney, colon, and small intestine.<sup>2</sup> Deficiency of Kindlin-1, as a result of loss-of-function mutations in the KIND1 gene, causes Kindler syndrome, an autosomal recessive genodermatosis characterized by skin blistering, progressive skin atrophy, photosensitivity, and, occasionally, carcinogenesis.<sup>3</sup> This gene has also been implicated in breast cancer lung metastasis and lung tumorigenesis.<sup>4</sup> Kindlin-1 was identified also as a potential marker of colon cancer.<sup>5</sup>

## 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

This product is for research 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 1.0–2.0 µg/mL is recommended using SW-48 total cell extracts.

**Immunofluorescence:** A working concentration of 2.5–5.0 µg/mL is recommended using SW-620 cells.

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

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## References

1. Larjava, H. et al., *EMBO reports*, **9**, 1203-1208 (2008).
2. Malinin, N.L. et al., *Blood*, **115**, 4011-4017 (2010).
3. Has, C. et al., *Hum. Mutat.*, **32**, 1204-1212 (2011).
4. Sin, S. et al., *J. Nat. Cancer Inst.*, **103**, 1323-1337 (2011).
5. Fan, J. et al., *Clin. Cancer Res.*, **17**, 2908-2918 (2011).

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