

Product Information

Anti-Kindlin-3

produced in rabbit, affinity isolated antibody

Product Number **SAB4200013**

Product Description

Anti-Kindlin-3 is produced in rabbit using as the immunogen a synthetic peptide corresponding to a fragment of human Kindlin-3 (GenelD: 83706), conjugated to KLH. The corresponding sequence differs by 1 amino acid in mouse and rat. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-Kindlin-3 recognizes human Kindlin-3. The antibody may be used by immunoblotting (~72 kDa). Detection of the Kindlin-3 band by immunoblotting is specifically inhibited by the immunizing peptide.

Kindlin-3 is a member of the kindlin family of focal adhesion proteins. The kindlin family consists of three members in vertebrates, Kindlin-1, Kindlin-2, and Kindlin-3 that share high sequence homology and a common structure containing a C-terminal FERM domain and a pleckstrin-homology domain. Even though their tissue distribution differs, the three kindlins are essential for the regulation of integrin activation by binding the tails of integrin- β subunits. While Kindlin-1 and Kindlin-2 are widely expressed, Kindlin-3 is preferentially expressed in hematopoietic cells, mainly in megakaryocytes and platelets. Loss of kindlins results in severe defects in integrin signaling, cell-ECM adhesion, and cytoskeletal organization. Deficiency of Kindlin-1 results in Kindler syndrome, Kindlin-2 results in early embryonic lethality due to cardiac developmental problems, and Kindlin-3 results in postnatal lethality due to abnormalities in platelet, leukocyte, and erythrocyte function.¹⁻⁵

Kindlin-3 is required for integrin-mediated leukocyte adhesion to endothelial cells. Mutations in Kindlin-3 cause Leukocyte adhesion deficiency-III, a rare syndrome in humans characterized by severe bleeding and impaired adhesion of leukocytes to inflamed endothelia.⁶⁻⁷

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

Store at -20°C . For continuous use, the product may be stored at $2-8^{\circ}\text{C}$ for up to one month. For extended storage, freeze in working aliquots -20°C . 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 antibody concentration of 5-10 $\mu\text{g/mL}$ is recommended using whole extracts of human TF1 cells.

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

References

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3. Larjava, H. et al., *EMBO Rep.*, **9**, 1203-1208 (2008).
4. Moser, M. et al., *Science*, **324**, 895-899 (2009).
5. Dowling, J.J. et al., *Circ. Res.*, **102**, 423-431 (2008).
6. Moser, M. et al., *Nat. Med.*, **14**, 325-330 (2008).
7. Moser, M. et al., *Nat. Med.*, **15**, 300-305 (2009).

VS,ST,TD,KAA,PHC,MAM 04/19-1