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Product Information

Monoclonal Anti-Pinin
Clone 5F1
produced in mouse, purified immunoglobulin

Catalog Number **P0084**

Product Description

Monoclonal Anti-Pinin (mouse IgG1 isotype) is derived from the hybridoma 5F1 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a synthetic peptide corresponding to amino acids 547-737 of human Pinin (GeneID: 5411), conjugated to KLH. The isotype is determined using a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2.

Monoclonal Anti-Pinin recognizes human pinin. It crossreacts with monkey, bovine, and dog pinin. The antibody may be used in various immunochemical techniques including ELISA, immunoblotting (~140 kDa) and immunocytochemistry.

Desmosomes are intracellular junctions that connect intermediate filaments to the cell surface and mediate strong cell-cell adhesions. They are responsible for maintaining the structural integrity of tissues by resisting shear forces. Biochemical and molecular analyses have led to the identification of several desmosome constitutive proteins, including desmoplakin, plakoglobin, and the transmembrane chadherin-like glycoproteins desmoglein and desmocollin.[1, 2] Pinin (PNN) is another protein that is associated with the mature desmosomes of the epithelia. It was found to localize to the cytoplasmic face of the desmosomal plaque in the convergence of intermediate filaments and to pin them to the desmosome. PNN was found to induce junction formation and enhance cell aggregation.[3] Moreover, using location-specific antibodies, PNN was found to localize both to the cytoplasm as well as to the nucleus in various tissues and cultured cell lines.[4, 5] Reduction of PNN protein level by RNAi or knockdown resulted in loss of cell-cell adhesion as well as aberrant mouse development through its involvement in the regulation Tcf/Lef transcription factor activity.[6, 7] In addition, PNN transcription and protein levels were found to be reduced in renal and transitional cell carcinomas as well as in certain cancer cell lines, suggesting its role as a tumor suppressor.[8]

Reagent

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

Antibody concentration: ~ 1.5 mg/mL

Precautions and Disclaimer

This product is 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

Immunoblotting: a working concentration of 1-2 µg/mL is recommended using HeLa nuclear cell extract.
Note: In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration.

References

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5. Shi, J., and Sugrue, S.P., *J. Biol. Chem.,* **275**, 14910-14915 (2000).
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GG,KAA,PHC 06/08-1