Product Information

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Anti-Abi1 (C-terminal)
produced in rabbit, affinity isolated antibody

Catalog Number **A5231**

Product Description

Anti-Abi1 (C-terminal) is produced in rabbit using as immunogen a synthetic peptide corresponding to amino acids 492-508 located at the C-terminus of human Abi1 (GeneID: 10006), conjugated to KLH. This sequence is identical in several species including mouse, rat and dog Abi1.The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-Abi1 (C-terminal) specifically recognizes human and rat Abi1 by immunoblotting (~65 kDa). Staining of the Abi1 band in immunoblotting is specifically inhibited by the immunizing peptide.

Actin dynamics play a central role in cellular function. Reorganization of the actin cytoskeleton, via actin polymerization and depolymerization, is required for diverse cellular processes, including cell morphology, cytokinesis, cell adhesion and motility. These processes are induced by the Rho family of small GTPases Cdc42 and Rac. The N-WASP and WAVE are members of a family of proteins that use the Arp2/3 complex to stimulate actin polymerization and cytoskeletal organization.[1-3] The WAVE proteins also play key roles in the induction of various actin remodeling processes including membrane ruffling and lamellipodia formation. The activity of the WAVE proteins is regulated via the formation of macromolecular complexes. The majority of cellular WAVE-1 and WAVE-2 is in complex with Nap1, PIR121/Sra1, HSPC300, and Abi1, an Abl-binding protein. Abi1 is an essential component of this signaling complex. It positively regulates WAVE activity and connects WAVE to Rac through assembly of the WAVE-Abi1-Nap1-PIR121 complex.[4-6] Abi1 has been shown to act as dual regulator of WAVE and N-WASP specific activities.[7, 8] Abi1 is essential for the formation and activation of WAVE2 signaling complex. Abi1 and WAVE are essential for Rac-dependent membrane protrusion and macropinocytosis, whereas Abi and N-WASP regulate actin-based vesicular transport, EGF receptor endocytosis, and EGFR and transferrin receptor (TfR) cell surface distribution.

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: ~1.5 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 continuous use, store at 2-8 °C for up to one month. For extended storage freeze 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 0.5-1.0 µg/mL is recommended using a rat brain cytosolic fraction (S1), and 1.0-2.0 µg/mL is recommended using A431 cell lysate.

Note: In order to obtain the best results and assay sensitivity in various techniques and preparations, we recommend determining optimal working concentrations by titration.

References

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