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Product Information

Anti-WASH1 antibody, Mouse monoclonal
clone WASH1-27, purified from hybridoma cell culture

Catalog Number **SAB4200552**

Product Description

Anti-WASH1 (mouse IgG1 isotype) is derived from the hybridoma WASH1-27 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a synthetic peptide corresponding to an internal region of human WASH1 (GeneID: 100287171), conjugated to KLH. The corresponding sequence differs by one amino acid in mouse and rat. 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-WASH1 recognizes human and mouse WASH1 (not tested in other species). The antibody may be used in various immunochemical techniques including immunoblotting (~72 kDa), immunoprecipitation and immunofluorescence.
Detection of the WASH1 band by immunoblotting is specifically inhibited by the immunizing peptide.

WASH1 (Wiskott-Aldrich Syndrome Protein and SCAR Homolog), a new member of the WASP family, is a nucleation-promoting factor at the surface of endosomes, where it recruits and activates the Arp2/3 complex to induce actin polymerization, playing a key role in the fission of endosomes. Similar to other WASP family members, it contains a C-terminal VCA domain that binds to actin and the Arp2/3 complex. In addition, WASH1 also contains a short proline-rich region, a unique N-terminal domain termed WASH-homology-domain (WAHD1), and a tubulin-binding region. Through its WAHD1 region, it interacts with FAM21, a protein that links WASH1 to endosomes. WASH1 forms part of a multiprotein complex composed of FAM21, KIAA1033 (SWIP), strumpellin and CCDC53. It associates with tubulin and localizes to early and recycling endosomes, where together with the Arp2/3 complex and actin, it is required for maintaining the shape of the endosomal compartment and the regulation of the retrograde transport.[1-4]

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 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 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 2.5-5.0 μg/mL is recommended using whole extracts of HEK-293T cells overexpressing mouse WASH1.

Immunoprecipitation: a working amount of 5-10 μg is recommended using lysates of human HeLa cells.

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

References

1. Gomez, T.S., and Billadeau, D.D, *Dev. Cell*, **17**, 699-711 (2009).
2. Derivery, E., et al., *Dev. Cell*, **17**, 712-723 (2009).
3. Duleh, S.N., and Welch, M.D., *Cytoskeleton*, **67**, 193-206 (2010).
4. Jia, D., et al., *Proc. Natl. Acad. Sci. USA*, **107**, 10442-10447 (2010).

RC,ST,TD,PHC 04/21-1