

Product Information

Anti-Coronin-1A (N-terminal)

produced in rabbit, affinity isolated antibody

Product Number **SAB4200078**

Product Description

Anti-Coronin-1A (N-terminal) is produced in rabbit using as the immunogen a synthetic peptide corresponding to a sequence at the N-terminal of human coronin-1A (GenelD 11151), conjugated to KLH. The corresponding sequence is identical in mouse and rat coronin-1A. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-Coronin-1A (N-terminal) specifically recognizes human, mouse, and rat coronin-1A. The antibody can be used in several immunochemical techniques including immunoblotting (~57 kDa). Detection of the coronin-1A band by immunoblotting is specifically inhibited by the coronin-1A immunizing peptide.

Coronin-1A (also known as coronin, CORO1A, TACO, CLIPINA, CLABP, p57) belongs to the coronin family of WD40 repeat-containing proteins. Coronins appear to function primarily in association with the membrane cytoskeleton through interaction with F-actin and the Arp2/3 complex.¹ They localize to sub-membrane areas and regulate cell motility and cytoskeletal rearrangement.

Coronin-1A is predominately expressed in hematopoietic cells. In macrophages and lymphocytes, coronin-1A accumulates at sites of rearrangements of the actin cytoskeleton.¹ In the CNS, coronin-1A is expressed exclusively by microglia cells.² Coronin-1A has been implicated in phagocytosis, influencing early stages of phagosome formation, and is involved in integration of extracellular signaling in leukocytes during immune specific functions.^{3,4} In T-lymphocytes, coronin-1A has been shown to link cytoskeleton dynamics to TCR $\alpha\beta$ induced signaling, chemokine-mediated cell migration and homeostasis.^{5,6} Knock-out of coronin-1A gene in murine T cells leads to reduced ability to respond to chemotactic gradient and decrease in peripheral T cells due to apoptosis. Coronin-1A is mutated in mice carrying the recessive peripheral T-cell deficiency (Ptcd) locus, resulting in a migration defect that impair thymic egress and T cell trafficking through lymph nodes.⁷

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Antibody concentration: ~1.5 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 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 dilutions should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 1.5-3.0 $\mu\text{g/mL}$ is recommended using Jurkat cell lysates, or lysates of mouse brain (S1 fraction) or rat spleen (S1 fraction).

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. Yan, M. et al., *J. Immunol.*, **178**, 5769-5778 (2007).
4. Nal, B. et al., *Int. Immunol.*, **16**, 231-240 (2004).
5. Föger, N. et al., *Science*, **313**, 839-842 (2006).
6. Mugnier, B. et al., *PlosOne*, **3**, e3467 (2008).
7. Shiow, L.R. et al., *Nat. Immunol.*, **9**, 1307-1315 (2008).

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