

Anti-Myosin 1G (RABBIT) Antibody
Myosin 1G Antibody
Catalog # ASR5369

Specification

Anti-Myosin 1G (RABBIT) Antibody - Product Information

Host	Rabbit
Conjugate	Unconjugated
Target Species	Human
Reactivity	Human
Clonality	Polyclonal
Application	WB, E, IP, I, LCI
Application Note	This affinity-purified antibody has been tested for use in ELISA, western blotting and possibly in immunoprecipitation as well. Specific conditions for reactivity should be optimized by the end user. By western blot a band approximately 100 kDa in size corresponding to Myosin 1G protein is expected in the appropriate cell lysate or extract.
Physical State	Liquid (sterile filtered)
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Immunogen	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to a C-terminal region of human Myosin 1G protein.
Preservative	0.01% (w/v) Sodium Azide

Anti-Myosin 1G (RABBIT) Antibody - Additional Information

Gene ID 64005

Other Names
64005

Purity

This affinity-purified antibody is directed against human Myosin 1G protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest cross reactivity with Myosin 1G from human, mouse, chimpanzee and rat based on 100% homology with the immunizing sequence. Cross reactivity with Myosin 1G from other sources has not been determined.

Storage Condition

Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted

liquid. Dilute only prior to immediate use.

Precautions Note

This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-Myosin 1G (RABBIT) Antibody - Protein Information

Name MYO1G

Synonyms HA2

Function

Unconventional myosin required during immune response for detection of rare antigen-presenting cells by regulating T-cell migration. Unconventional myosins are actin-based motor molecules with ATPase activity and serve in intracellular movements. Acts as a regulator of T-cell migration by generating membrane tension, enforcing cell-intrinsic meandering search, thereby enhancing detection of rare antigens during lymph-node surveillance, enabling pathogen eradication. Also required in B-cells, where it regulates different membrane/cytoskeleton-dependent processes. Involved in Fc-gamma receptor (Fc-gamma-R) phagocytosis.

Cellular Location

Cell membrane; Peripheral membrane protein. Cell projection, phagocytic cup {ECO:0000250|UniProtKB:Q5SUA5} Note=Recruited to Fc-gamma receptor (Fc-gamma-R) phagocytic cup. In T- cells, transiently accumulates in discrete areas at the plasma membrane of migrating cells or when membranes are deformed (By similarity) Localization at the membrane is not highly dependent on phosphatidylinositol 4,5-bisphosphate levels. Released from the membrane in the presence of ATP. May be enriched in peripheral processes, such as microvilli or ruffles {ECO:0000250|UniProtKB:Q5SUA5, ECO:0000269|PubMed:20071333}

Tissue Location

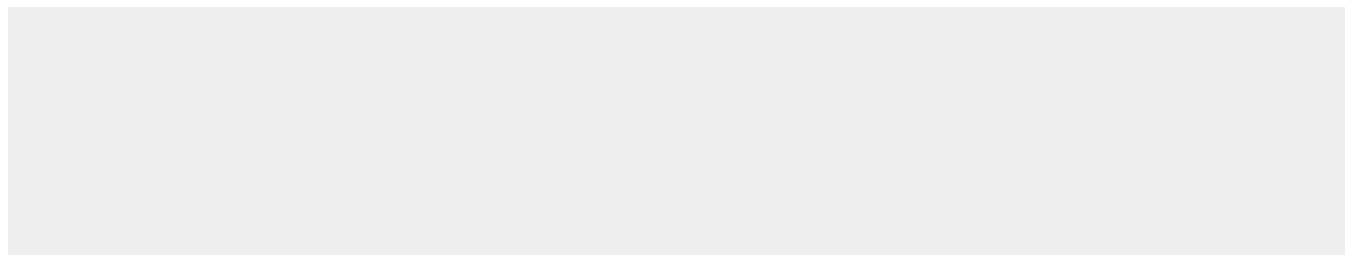
Specifically expressed in hematopoietic cells.

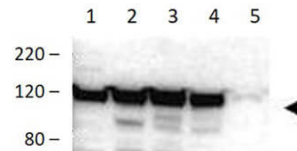
Anti-Myosin 1G (RABBIT) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Myosin 1G (RABBIT) Antibody - Images





Western blot using Rockland's affinity purified anti-Myosin 1G antibody. Lane 1: Jurkat cell lysates (p/n W09-001-370) [+]. Lane 2: peripheral blood T cell lysates [+]. Lane 3: human spleen lysates [+]. Lane 4: 300.19 cell lysates [+]. Lane 5: 293 cell lysates (p/n W09-000-365) [-]. Shows detection of a band ~100kDa in size corresponding to Myosin 1G (arrowhead) in Myosin 1G positive whole cell lysates. Personal Communication. Stephen Shaw, NCI, Bethesda, MD.

Anti-Myosin 1G (RABBIT) Antibody - Background

This antibody is designed, produced, and validated as part of a collaboration between Rockland and the National Cancer Institute (NCI) and is suitable for Cancer, Immunology and Nuclear Signaling research. In general, myosins are protein complexes consisting of one or more myosin heavy chains, associated light chains and other proteins. Myosins function as molecular motors and use the energy of ATP hydrolysis to move actin filaments or to move vesicles or other cargo on fixed actin filaments. Myosins have magnesium-ATPase activity and bind actin. Myosins can be divided into classes that are distinguished based on sequence features of the motor, or head domain, but also have distinct tail regions that are believed to bind specific cargoes. Unconventional myosins exist. Myosin 1G is an unconventional myosin that is restricted to hematopoietic cells. Unconventional myosins are also critical for motility in amoeba and a mammalian paralog (Myo1C) is critical as a glucose transporter that recycles glucose in response to insulin.