

For Research Use Only

# ARHGEF1 Recombinant monoclonal antibody, PBS Only

Catalog Number: 88129-1-PBS



## Basic Information

|                           |             |                           |                                                |                      |                        |
|---------------------------|-------------|---------------------------|------------------------------------------------|----------------------|------------------------|
| Catalog Number:           | 88129-1-PBS | GenBank Accession Number: | BC011726                                       | Purification Method: | Protein A purification |
| Source:                   | Rabbit      | GeneID (NCBI):            | 9138                                           | CloneNo.:            | 260491F5               |
| Isotype:                  | IgG         | UNIPROT ID:               | Q92888                                         |                      |                        |
| Immunogen Catalog Number: | AG1905      | Full Name:                | Rho guanine nucleotide exchange factor (GEF) 1 |                      |                        |
|                           |             | Calculated MW:            | 912 aa, 102 kDa                                |                      |                        |
|                           |             | Observed MW:              | 115 kDa                                        |                      |                        |

## Applications

Tested Applications:  
WB, IF/ICC, Indirect ELISA

Species Specificity:  
human

## Background Information

ARHGEF1, also known as p115-RhoGEF, is a member of the Rho guanine nucleotide exchange factor (GEF) family, specifically activating the small GTPase RhoA by catalyzing the exchange of GDP for GTP. Structurally, it contains a Dbl homology (DH) domain responsible for GEF activity, a Pleckstrin homology (PH) domain that may regulate membrane association, and an RGS-like domain that interacts with the G-protein subunits G $\alpha$  12/13. This protein is expressed ubiquitously, with particularly high expression in hematopoietic and lymphoid tissues, and plays a critical role in transducing signals from G protein-coupled receptors coupled to G $\alpha$  12/13 to activate RhoA and its downstream effector ROCK, thereby regulating cytoskeletal dynamics, cell contraction, and migration. Notably, ARHGEF1 acts as a dual-specificity regulator, functioning as a GAP for G $\alpha$  12/13 while serving as a GEF for RhoA. Its involvement in essential physiological processes, such as angiotensin II-induced vascular smooth muscle contraction, underscores its importance, while mutations in the ARHGEF1 gene are associated with immunodeficiency 62 and other potential pathologies.

## Storage

Storage:  
Store at -80°C.  
The product is shipped with ice packs. Upon receipt, store it immediately at -80°C

Storage Buffer:  
PBS only, pH7.3

For technical support and original validation data for this product please contact:

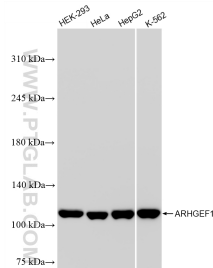
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## Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 88129-1-RR (ARHGEF1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 88129-1-PBS in a different storage buffer formulation.

