

# Phospho-MYH9(Y158) Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP3775a

# **Product Information**

| Application       | DB, E                                      |
|-------------------|--|
| Primary Accession | <u>P35579</u>                              |
| Other Accession   | <u>Q62812, Q8VDD5, P14105, NP_002464.1</u> |
| Reactivity        | Human                                      |
| Predicted         | Chicken, Mouse, Rat                        |
| Host              | Rabbit                                     |
| Clonality         | Polyclonal                                 |
| Isotype           | Rabbit IgG                                 |
| Clone Names       | RB36361                                    |
| Calculated MW     | 226532                                     |

#### **Additional Information**

| Gene ID            | 4627  |
|--------------------|---|
| Other Names        | Myosin-9, Cellular myosin heavy chain, type A, Myosin heavy chain 9, Myosin<br>heavy chain, non-muscle IIa, Non-muscle myosin heavy chain A, NMMHC-A,<br>Non-muscle myosin heavy chain IIa, NMMHC II-a, NMMHC-IIA, MYH9 |
| Target/Specificity | This MYH9 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding Y158 of human MYH9.  |
| Dilution           | DB~~1:500 E~~Use at an assay dependent concentration.   |
| Format             | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.<br>This antibody is purified through a protein A column, followed by peptide<br>affinity purification.                                      |
| Storage            | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.   |
| Precautions        | Phospho-MYH9(Y158) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.   |

#### **Protein Information**

| Name     | MYH9   |
|----------|--|
| Function | Cellular myosin that appears to play a role in cytokinesis, cell shape, and specialized functions such as secretion and capping. Required for cortical |

|                   | actin clearance prior to oocyte exocytosis (By similarity). Promotes cell<br>motility in conjunction with S100A4 (PubMed: <u>16707441</u> ). During cell<br>spreading, plays an important role in cytoskeleton reorganization, focal<br>contact formation (in the margins but not the central part of spreading cells),<br>and lamellipodial retraction; this function is mechanically antagonized by<br>MYH10 (PubMed: <u>20052411</u> ).  |
|-------------------|---|
| Cellular Location | Cytoplasm, cytoskeleton. Cytoplasm, cell cortex<br>{ECO:0000250 UniProtKB:Q8VDD5}. Cytoplasmic vesicle, secretory vesicle,<br>Cortical granule {ECO:0000250 UniProtKB:Q8VDD5}. Cell membrane<br>Note=Colocalizes with actin filaments at lamellipodia margins and at the<br>leading edge of migrating cells (PubMed:20052411). In retinal pigment<br>epithelial cells, predominantly localized to stress fiber-like structures with<br>some localization to cytoplasmic puncta (PubMed:27331610). |
| Tissue Location   | In the kidney, expressed in the glomeruli. Also expressed in leukocytes.  |

# Background

This gene encodes a myosin IIA heavy chain that contains an IQ domain and a myosin head-like domain. The protein is involved in several important functions, including cytokinesis, cell motility and maintenance of cell shape. Defects in MYH9 are the cause of non-syndromic sensorineural deafness autosomal dominant type 17, Epstein syndrome, Alport syndrome with macrothrombocytopenia, Sebastian syndrome, Fechtner syndrome and macrothrombocytopenia with progressive sensorineural deafness.

# References

Arii, J., et al. Nature 467(7317):859-862(2010) Genovese, G., et al. Kidney Int. 78(7):698-704(2010) Tzur, S., et al. Hum. Genet. 128(3):345-350(2010) Bostrom, M.A., et al. Hum. Genet. 128(2):195-204(2010) Oleksyk, T.K., et al. PLoS ONE 5 (7), E11474 (2010) :

#### Images



Dot blot analysis of Phospho-MYH9-Y158 Antibody Phospho-specific Pab (Cat. #AP3775a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.6ug per ml.

# Citations

• <u>Src-dependent Tyrosine Phosphorylation of Non-muscle Myosin Heavy Chain-IIA Restricts Listeria monocytogenes</u> <u>Cellular Infection.</u> Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.