# PPP1R12A (Human) Cell-Based ELISA Kit

Catalog # KA3256 Size 1 Kit

## Specification

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| **Product Description** | PPP1R12A (Human) Cell-Based ELISA Kit is an indirect enzyme-linked immunoassay for qualitative determination of PPP1R12A expression in cultured cells. |
| **Suitable Sample** | Attached Cell, Loosely Attached Cell, Suspension Cell |
| **Label** | HRP-conjugated |
| **Detection Method** | Colorimetric |
| **Assay Type** | Qualitative |
| **Reactivity** | Human, Mouse, Rat |
| **Regulation Status** | For research use only (RUO) |
| **Storage Instruction** | Store the kit at 4°C. |

## Applications

- Qualitative

## Gene Info — PPP1R12A

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| **Entrez GeneID** | 4659 |
| **Gene Name** | PPP1R12A |
| **Gene Alias** | MBS, MGC133042, MYPT1 |
| **Gene Description** | protein phosphatase 1, regulatory (inhibitor) subunit 12A |
| **Omim ID** | 602021 |

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| **Gene Ontology** | Hyperlink |
| **Gene Summary** | Myosin phosphatase target subunit 1, which is also called the myosin-binding subunit of myosin p hosphatase, is one of the subunits of myosin phosphatase. Myosin phosphatase regulates the int eraction of actin and myosin downstream of the guanosine triphosphatase Rho. The small guanos ine triphosphatase Rho is implicated in myosin light chain (MLC) phosphorylation, which results in contraction of smooth muscle and interaction of actin and myosin in nonmuscle cells. The guanosi ne triphosphate (GTP)-bound, active form of RhoA (GTP.RhoA) specifically interacted with the my osin-binding subunit (MBS) of myosin phosphatase, which regulates the extent of phosphorylation of MLC. Rho-associated kinase (Rho-kinase), which is activated by GTP. RhoA, phosphorylated MBS and consequently inactivated myosin phosphatase. Overexpression of RhoA or activated Rh oA in NIH 3T3 cells increased phosphorylation of MBS and MLC. Thus, Rho appears to inhibit my osin phosphatase through the action of Rho-kinase. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq |
| **Other Designations** | myosin phosphatase, target subunit 1 |

## Pathway

- Focal adhesion
- Long-term potentiation
- Regulation of actin cytoskeleton
- Vascular smooth muscle contraction

## Disease

- Genetic Predisposition to Disease
- Lung Neoplasms
- Tobacco Use Disorder

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