# Anti-Phospho-INPP5D-(Y1020) Antibody

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| **Description** | This gene is a member of the inositol polyphosphate-5-phosphatase (INPP5) family and encodes a protein with an N-terminal SH2 domain, an inositol phosphatase domain, and two C-terminal protein interaction domains. Expression of this protein is restricted to hematopoietic cells where its movement from the cytosol to the plasma membrane is mediated by tyrosine phosphorylation. At the plasma membrane, the protein hydrolyzes the 5' phosphate from phosphatidylinositol (3,4,5)-trisphosphate and inositol-1,3,4,5-tetrakisphosphate, thereby affecting multiple signaling pathways. The protein is also partly localized to the nucleus, where it may be involved in nuclear inositol phosphate signaling processes. Overall, the protein functions as a negative regulator of myeloid cell proliferation and survival. Mutations in this gene are associated with defects and cancers of the immune system. Alternative splicing of this gene results in multiple transcript variants. |
| **Model** | STJ116398 |
| **Host** | Rabbit |
| **Reactivity** | Human |
| **Applications** | WB |
| **Immunogen** | A synthetic phosphorylated peptide around Y1020 of human INPP5D (NP_001017915.1). |
| **Gene ID** | 3635 |
| **Gene Symbol** | INPP5D |
| **Dilution range** | WB 1:500 - 1:2000 |
| **Tissue Specificity** | Specifically expressed in immune and hematopoietic cells, Expressed in bone |

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| | marrow and blood cells, Levels vary considerably within this compartment, Present in at least 74% of immature CD34+ cells, whereas within the more mature population of CD33+ cells, it is present in only 10% of cells, Present in the majority of T-cells, while it is present in a minority of B-cells (at protein level) |
| **Purification** | Affinity purification |
| **Note** | For Research Use Only (RUO). |
| **Protein Name** | Phosphatidylinositol 3,4,5-trisphosphate 5-phosphatase 1 |
| **Molecular Weight** | 133.292 kDa |
| **Clonality** | Polyclonal |
| **Conjugation** | Unconjugated |
| **Isotype** | IgG |
| **Formulation** | PBS with 0.02% sodium azide, 50% glycerol, pH7.3. |
| **Storage Instruction** | Store at -20C. Avoid freeze / thaw cycles. |
| **Database Links** | HGNC:6079OMIM:601582Reactome:R-HSA-1660499 |
| **Alternative Names** | Phosphatidylinositol 3,4,5-trisphosphate 5-phosphatase 1 |
| **Function** | Phosphatidylinositol (PtdIns) phosphatase that specifically hydrolyzes the 5-phosphate of phosphatidylinositol-3,4,5-trisphosphate (PtdIns(3,4,5)P3) to produce PtdIns(3,4)P2, thereby negatively regulating the PI3K (phosphoinositide 3-kinase) pathways, Acts as a negative regulator of B-cell antigen receptor signaling, Mediates signaling from the FC-gamma-RIIB receptor (FCGR2B), playing a central role in terminating signal transduction from activating immune/hematopoietic cell receptor systems, Acts as a negative regulator of myeloid cell proliferation/survival and chemotaxis, mast cell degranulation, immune cells homeostasis, integrin alpha-IIb/beta-3 signaling in platelets and JNK signaling in B-cells, Regulates proliferation of osteoclast precursors, macrophage programming, phagocytosis and activation and is required for endotoxin tolerance, Involved in the control of cell-cell junctions, CD32a signaling in neutrophils and modulation of EGF-induced phospholipase C activity, Key regulator of neutrophil migration, by governing the formation of the leading edge and polarization required for chemotaxis, Modulates FCGR3/CD16-mediated cytotoxicity in NK cells, Mediates the activin/TGF-beta-induced apoptosis through its Smad-dependent expression, May also hydrolyze PtdIns(1,3,4,5)P4, and could thus affect the levels of the higher inositol polyphosphates like InsP6, |
| **Cellular Localization** | Cytoplasm, |
| **Post-translational Modifications** | Tyrosine phosphorylated by the members of the SRC family after exposure to a diverse array of extracellular stimuli such as cytokines, growth factors, antibodies, chemokines, integrin ligands and hypertonic and oxidative stress, Phosphorylated upon IgG receptor FCGR2B-binding, |