Anti-Phospho-Hck (Y410) antibody

Description	Rabbit polyclonal to Phospho-Hck (Y410).

Model	STJ91341
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	ELISA, IF, IHC
Immunogen	Synthesized peptide derived from human Hck around the phosphorylation site of Y410.
Immunogen Region	350-430 aa
Gene ID	3055
Gene Symbol	HCK
Dilution range	IHC 1:100-1:300IF 1:200-1:1000ELISA 1:20000
Specificity	Phospho-Hck (Y410) Polyclonal Antibody detects endogenous levels of Hck protein only when phosphorylated at Y410.
Tissue Specificity	Detected in monocytes and neutrophils (at protein level). Expressed predominantly in cells of the myeloid and B-lymphoid lineages. Highly expressed in granulocytes. Detected in tonsil.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Tyrosine-protein kinase HCK Hematopoietic cell kinase Hemopoietic cell kinase p59-HCK/p60-HCK p59Hck p61Hck

Molecular Weight	61 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:4840OMIM:142370
Alternative Names	Tyrosine-protein kinase HCK Hematopoietic cell kinase Hemopoietic cell kinase p59-HCK/p60-HCK p59Hck p61Hck
Function	Non-receptor tyrosine-protein kinase found in hematopoietic cells that transmits signals from cell surface receptors and plays an important role in the regulation of innate immune responses, including neutrophil, monocyte, macrophage and mast cell functions, phagocytosis, cell survival and proliferation, cell adhesion and migration. Acts downstream of receptors that bind the Fc region of immunoglobulins, such as FCGR1A and FCGR2A, but also CSF3R, PLAUR, the receptors for IFNG, IL2, IL6 and IL8, and integrins, such as ITGB1 and ITGB2. During the phagocytic process, mediates mobilization of secretory lysosomes, degranulation, and activation of NADPH oxidase to bring about the respiratory burst. Plays a role in the release of inflammatory molecules. Promotes reorganization of the actin cytoskeleton and actin polymerization, formation of podosomes and cell protrusions. Inhibits TP73-mediated transcription activation and TP73-mediated apoptosis. Phosphorylates CBL in response to activation of immunoglobulin gamma Fc region receptors. Phosphorylates ADAM15, BCR, ELMO1, FCGR2A, GAB1, GAB2, RAPGEF1, STAT5B, TP73, VAV1 and WAS.
Sequence and Domain Family	The SH3 domain mediates binding to HIV-1 Nef.
Cellular Localization	Isoform 1: Lysosome. Membrane. Lipid-anchor. Cell projection, podosome membrane. Lipid-anchor. Cytoplasm, cytosol. Associated with specialized secretory lysosomes called azurophil granules. At least half of this isoform is found in the cytoplasm, some of this fraction is myristoylated.. Isoform 2: Cell membrane Membrane, caveola Cell junction, focal adhesion Cytoplasm, cytoskeleton Golgi apparatus Cytoplasmic vesicle Lysosome Nucleus. 20% of this isoform is associated with caveolae. Localization at the cell membrane and at caveolae requires palmitoylation at Cys-3. Colocalizes with the actin cytoskeleton at focal adhesions.. Cytoplasmic vesicle, secretory vesicle. Cytoplasm, cytosol.
Post-translational Modifications	Phosphorylated on several tyrosine residues. Autophosphorylated. Becomes rapidly phosphorylated upon activation of the immunoglobulin receptors FCGR1A and FCGR2A. Phosphorylation by the BCR-ABL fusion protein mediates activation of HCK. Phosphorylation at Tyr-411 increases kinase activity. Phosphorylation at Tyr-522 inhibits kinase activity. Kinase activity is not required for phosphorylation at Tyr-522, suggesting that this site is a target of other kinases. Ubiquitinated by CBL, leading to its degradation via the proteasome. Isoform 2 palmitoylation at position 2 requires prior myristoylation. Palmitoylation at position 3 is required for caveolar

localization of isoform 2.