

Rabbit HCK Polyclonal Antibody | anti-HCK antibody

HCK Antibody

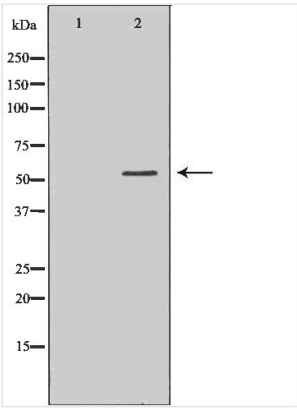
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326568	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

HCK; Polyclonal Antibody; HCK Antibody; Bmk; Hck 1; Hck; HCK_HUMAN; Hemopoietic cell kinase; JTK9; p59-HCK/p60-HCK; p59Hck; p59HCK/p60HCK; p61Hck; Tyrosine protein kinase HCK; Tyrosine-protein kinase HCK; anti-HCK antibody

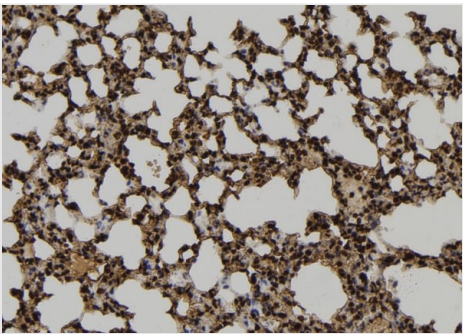
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	HCK antibody detects endogenous levels of total HCK
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	505
Applicable Applications for anti-HCK antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human HCK
Subcellular Location	Membrane. Cytoplasm. At least half of this isoform is found in the cytoplasm, some of this fraction is myristoylated and membrane. Membrane > Caveola. 20% of this isoform is associated with caveolae, this association depends on palmitoylation of cyteine at position 3.
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.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



WB (Western Blot)

Western blot analysis of extracts of Raji, using HCK antibody. The lane on the left is treated with the antigen-specific peptide.



IHC (Immunohistochemistry)

AAA326568 at 1/100 staining Mouse lung tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION

Related Product Information for anti-HCK antibody	Description: Hck (hemopoietic cell kinase) is a protein tyrosine kinase of the Src family prominently expressed in the lymphoid and myeloid lineages of hemopoiesis (1). It participates in transducing a variety of extracellular signals, which ultimately affect cellular processes including proliferation, differentiation and migration. The well-defined modular structure of Hck comprises a relatively divergent, NH2-terminal unique domain, which is subject to post-translational lipid modifications thereby targeting Hck to the plasma membrane. Src homology 3 (SH3) and 2 (SH2) domains, and a tyrosine kinase catalytic domain follow the unique domain. The catalytic activity of Hck is regulated, both positively and negatively, by tyrosine phosphorylation of highly conserved tyrosine (Y) residues. Phosphorylation of a single conserved Tyr499 residue in the COOH terminus of Hck by the protein kinase Csk renders Hck inactive as a result of an intramolecular interaction between the phosphorylated tyrosine (pY) residue and its own SH2 domain. Disruption of this interaction, either as a result of dephosphorylation, or substitution of the COOH-terminal regulatory Y residue with phenylalanine (F; e.g., HckY499F), or COOH-terminal truncation mutations as observed in the virally transduced v-Src oncoprotein, results in constitutive activation of Hck. In contrast to phosphorylation of the COOH-terminal regulatory tyrosine residue, autophosphorylation of a tyrosine residue (Tyr388) within the kinase domain of Hck acts to positively regulate its catalytic activity. Thus, activation of Hck requires both disruption of the COOH-terminal regulatory tyrosine-SH2 domain interaction and autophosphorylation of the regulatory tyrosine residue within the kinase domain (2, 3). The dysfunction or dysregulation of Hck may contribute to the pathogenesis of some human leukemias (4). 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. Subunit Structure: Interacts (via SH2 domain) with FLT3 (tyrosine phosphorylated). Interacts with VAV1, WAS and RAPGEF1 (By similarity). Interacts (via SH3 domain) with HIV-1 Nef and Vif. This interaction stimulates its tyrosine-kinase activity. Interacts (via SH3 domain) with HEV ORF3 protein. Interacts with ARRB1 and ARRB2. Interacts with ADAM15. Interacts with FASLG. Interacts with CBL. Interacts with FCGR1A; the interaction may be indirect. Interacts with IL6ST. Interacts (via SH3 domain) with ELMO1. Interacts (via SH3 domain) with TP73. Interacts with YAP1. Interacts with ABL1 and ITGB1, and thereby recruits ABL1 to activated ITGB1. Interacts (via SH3 domain) with WDCP. 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. Similarity: The SH3 domain mediates binding to HIV-1 Nef. Belongs to the protein kinase superfamily. Tyr protein kinase family. SRC subfamily.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	287326139
NCBI GeneID	3055
NCBI Accession #	NP_001165600.1
NCBI GenBank Nucleotide #	NM_001172129.1
UniProt Accession #	P08631; Q29RX1; Q2VPE2; Q504R5; Q5T7K1; Q5T7K2; Q96CC0; Q9H5Y5; Q9NUA4; A8K111; B4DQB6; E1P5M2
Molecular Weight	Observed: 57 kDa Predicted: 60 kDa
NCBI Official Full Name	tyrosine-protein kinase HCK isoform b

NCBI Official Synonym Full Names	HCK proto-oncogene, Src family tyrosine kinase
NCBI Official Symbol	HCK
NCBI Official Synonym Symbols	JTK9; p59Hck; p61Hck
NCBI Protein Information	tyrosine-protein kinase HCK
UniProt Protein Name	Tyrosine-protein kinase HCK
UniProt Gene Name	HCK

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/hck-antibody-immunohistochemistry-western-blot-elisa/326568>