

## HCK Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP7710a

## Specification

# HCK Antibody (N-term) - Product Information

Application	WB,E
Primary Accession	<u>P08631</u>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
lsotype	Rabbit IgG
Calculated MW	59600
Antigen Region	1-30

## HCK Antibody (N-term) - Additional Information

### Gene ID 3055

**Other Names** Tyrosine-protein kinase HCK, Hematopoietic cell kinase, Hemopoietic cell kinase, p59-HCK/p60-HCK, p59Hck, p61Hck, HCK

### Target/Specificity

This HCK antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human HCK.

Dilution WB~~1:1000 E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide 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** 

HCK Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## HCK Antibody (N-term) - Protein Information

Name HCK

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.

### **Cellular Location**

[Isoform 1]: Lysosome. Membrane; Lipid-anchor. Cell projection, podosome membrane; Lipid-anchor. Cytoplasm, cytosol Note=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 Cytoplasmic vesicle, secretory vesicle. Cytoplasm, cytosol

#### **Tissue Location**

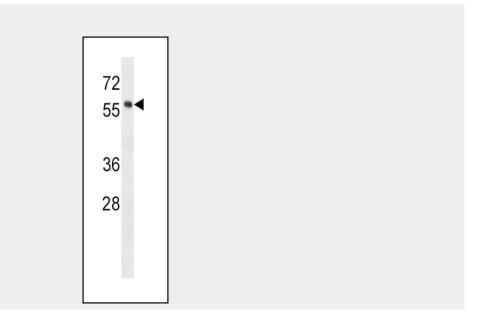
Detected in monocytes and neutrophils (at protein level). Expressed predominantly in cells of the myeloid and B-lymphoid lineages. Highly expressed in granulocytes. Detected in tonsil

## HCK Antibody (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- <u>Dot Blot</u>
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

### HCK Antibody (N-term) - Images





HCK Antibody (E8) (Cat. #AP7710a) western blot analysis in human placenta tissue lysates (35ug/lane). This demonstrates the HCK antibody detected the HCK protein (arrow).

## HCK Antibody (N-term) - Background

HCK is a protein-tyrosine kinase that is predominantly expressed in hemopoietic cell types. The encoded protein may help couple the Fc receptor to the activation of the respiratory burst. In addition, it may play a role in neutrophil migration and in the degranulation of neutrophils. Alternate translation initiation site usage, including a non-AUG (CUG) codon, results in the production of two different isoforms, that have different subcellular localization.

### HCK Antibody (N-term) - References

Komuro, I., et al., J. Exp. Med. 198(3):443-453 (2003). Lake, J.A., et al., J. Clin. Virol. 26(2):143-152 (2003). Stanglmaier, M., et al., Leukemia 17(2):283-289 (2003). Lerner, E.C., et al., Nat. Struct. Biol. 9(5):365-369 (2002). Chang, A.H., et al., Eur. J. Immunol. 31(8):2382-2387 (2001).