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HCK Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1139a

Product Information

Application	WB, IHC, E
Primary Accession	P08631
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	3D12E10
Isotype	IgG1
Calculated MW	59600
Description	Hemopoietic cell kinase.The protein encoded by this gene 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.
Immunogen	Purified recombinant fragment of HCK expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	3055
Other Names	Tyrosine-protein kinase HCK, 2.7.10.2, Hematopoietic cell kinase, Hemopoietic cell kinase, p59-HCK/p60-HCK, p59Hck, p61Hck, HCK
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 E~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	HCK Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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

References

1. J Clin Gastroenterol. 2007 Aug;41(7):667-70.

Images

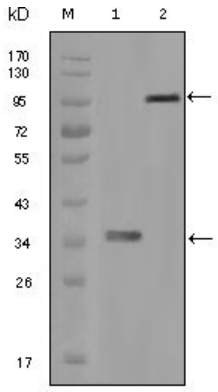


Figure 1: Western blot analysis using HCK mouse mAb against truncated HCK recombinant protein (1) and full-length HCK-GFP transfected CHO-K1 cell lysate (2).

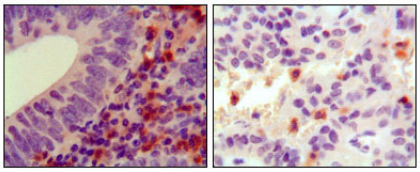


Figure 2: Immunohistochemical analysis of paraffin-embedded human colon cancer (left) and ancreas cancer (right), showing cytoplasmic localization using HCK mouse mAb with DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.