

NCKAP1L Rabbit pAb

Catalog # AP97535

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P55160
Other Accession	P55160
Host	Rabbit
Clonality	Polyclonal
Calculated MW	128153
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from Human NCKAP1L/HEM1
Epitope Specificity	1-100/1127
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the HEM-1/HEM-2 family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a member of the HEM family of tissue-specific transmembrane proteins which are highly conserved from invertebrates through mammals. This gene is only expressed in hematopoietic cells. The encoded protein is a part of the Scar/WAVE complex which plays an important role in regulating cell shape in both metazoans and plants. Alternatively spliced transcript variants encoding different isoforms have been found.[provided by RefSeq, May 2010]

Additional Information

Gene ID	3071
Other Names	NCKPL_HUMAN; NCKAP1L; Hematopoietic protein 1; Membrane-associated protein HEM-1; HEM1; NCK associated protein 1 like
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	NCKAP1L (HGNC:4862)
Function	Essential hematopoietic-specific regulator of the actin cytoskeleton

(Probable). Controls lymphocyte development, activation, proliferation and homeostasis, erythrocyte membrane stability, as well as phagocytosis and migration by neutrophils and macrophages (PubMed:[16417406](#), PubMed:[17696648](#)). Component of the WAVE2 complex which signals downstream of RAC to stimulate F-actin polymerization. Required for stabilization and/or translation of the WAVE2 complex proteins in hematopoietic cells (By similarity). Within the WAVE2 complex, enables the cortical actin network to restrain excessive degranulation and granule release by T-cells (PubMed:[32647003](#)). Required for efficient T-lymphocyte and neutrophil migration (PubMed:[32647003](#)). Exhibits complex cycles of activation and inhibition to generate waves of propagating the assembly with actin (PubMed:[16417406](#)). Also involved in mechanisms WAVE-independent to regulate myosin and actin polymerization during neutrophil chemotaxis (PubMed:[17696648](#)). In T-cells, required for proper mechanistic target of rapamycin complex 2 (mTORC2)-dependent AKT phosphorylation, cell proliferation and cytokine secretion, including that of IL2 and TNF (PubMed:[32647003](#)).

Cellular Location

Cell membrane; Single-pass membrane protein; Cytoplasmic side. Cytoplasm. Note=Localizes to the leading edge of polarized neutrophils

Tissue Location

Expressed only in cells of hematopoietic origin (PubMed:1932118, PubMed:7643388). Expressed in neutrophils (at protein level) (PubMed:16417406). Expressed in T-cells (at protein level) (PubMed:32647003).

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