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NCKPL Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP18156c

Product Information

Application	WB, E
Primary Accession	P55160
Other Accession	NP_005328.2
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB25232
Calculated MW	128153
Antigen Region	641-669

Additional Information

Gene ID	3071
Other Names	Nck-associated protein 1-like, Hematopoietic protein 1, Membrane-associated protein HEM-1, NCKAP1L, HEM1
Target/Specificity	This NCKPL antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 641-669 amino acids from the Central region of human NCKPL.
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	NCKPL Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

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).

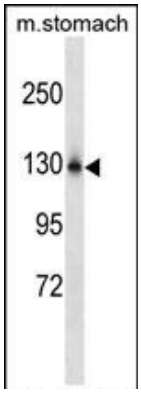
Background

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.

References

Joshi, A.D., et al. Clin. Cancer Res. 13 (18 PT 1), 5295-5304 (2007) :
Weiner, O.D., et al. PLoS Biol. 5 (9), E221 (2007) :
Weiner, O.D., et al. PLoS Biol. 4 (2), E38 (2006) :
Baumgartner, S., et al. J. Mol. Biol. 251(1):41-49(1995)
Hromas, R., et al. Biochim. Biophys. Acta 1090(2):241-244(1991)

Images



NCKPL Antibody (Center) (Cat. #AP18156c) western blot analysis in mouse stomach tissue lysates (35ug/lane).This demonstrates the NCKPL antibody detected the NCKPL protein (arrow).