10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

KLC2 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12241a

Product Information

Application	IHC-P, FC, WB, E
Primary Accession	Q9H0B6
Other Accession	NP_073733.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB32004
Calculated MW	68935
Antigen Region	128-156

Additional Information

Gene ID	64837
Other Names	Kinesin light chain 2, KLC 2, KLC2
Target/Specificity	This KLC2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 128-156 amino acids from the N-terminal region of human KLC2.
Dilution	IHC-P~~1:100~500 FC~~1:10~50 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	KLC2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	KLC2 (HGNC:20716)
Function	Kinesin is a microtubule-associated force-producing protein that plays a role in organelle transport. The light chain functions in coupling of cargo to the heavy chain or in the modulation of its ATPase activity (Probable).

	Through binding with PLEKHM2 and ARL8B, recruits kinesin-1 to lysosomes and hence direct lysosomes movement toward microtubule plus ends (PubMed:22172677).
Cellular Location	Cytoplasm, cytoskeleton. Lysosome membrane; Peripheral membrane protein; Cytoplasmic side

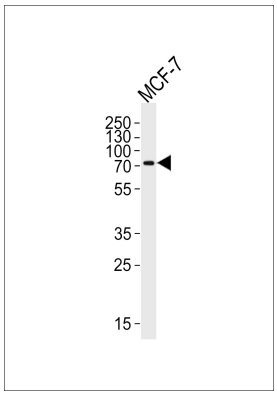
Background

Kinesin is a molecular motor that generates ATP-dependent movement of vesicles and organelles along microtubules. Kinesin consists of 2 light chains, such as KLC2, and 2 heavy chains (see KIF5B; MIM 602809) in a 1:1 stoichiometric ratio (Rahman et al., 1998 [PubMed 9624122]).

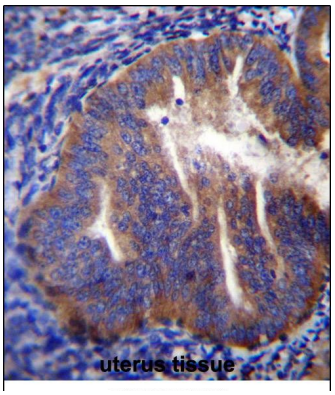
References

Trejo, H.E., et al. FASEB J. 24(2):374-382(2010)
Sugiyama, N., et al. Mol. Cell Proteomics 6(6):1103-1109(2007)
Ewing, R.M., et al. Mol. Syst. Biol. 3, 89 (2007) :
Olsen, J.V., et al. Cell 127(3):635-648(2006)
Olsen, J.V., et al. Cell 127(3):635-648(2006)

Images

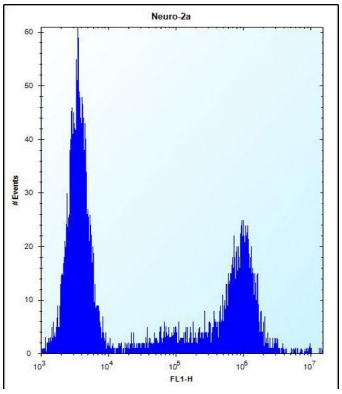


Western blot analysis of lysate from MCF-7 cell line, using KLC2 Antibody (N-term)(Cat. #AP12241a). AP12241a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35ug per lane.



KLC2 Antibody (N-term) (Cat. #AP12241a)immunohistochemistry analysis in formalin fixed and paraffin embedded human uterus tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of KLC2 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

KLC2 Antibody (N-term) (Cat. #AP12241a) flow cytometric analysis of Neuro-2a cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated donkey-anti-rabbit secondary antibodies were used for the analysis.



Citations

- Role of Ostm1 cytosolic complex with Kinesin 5B in intracellular dispersion and trafficking.