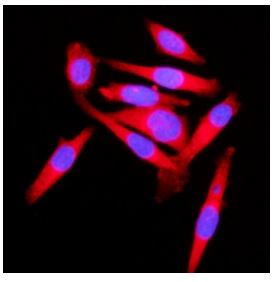
KLC1 Antibody / Kinesin light chain 1 (RQ6566)

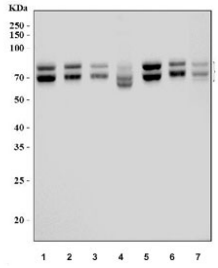
Catalog No.	Formulation	Size
RQ6566	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

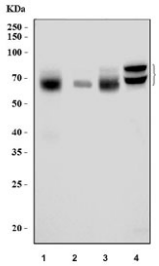
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q07866
Localization	Cytoplasmic
Applications	Western blot: 1-2ug/ml Immunofluorescence: 5ug/ml Flow cytometry: 1-3ug/million cells Direct ELISA: 0.1-0.5ug/ml
Limitations	This KLC1 antibody is available for research use only.



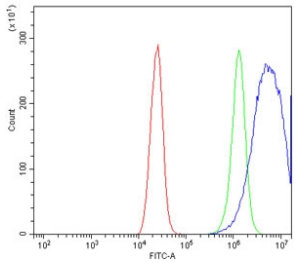
Immunofluorescent staining of FFPE human PC-3 cells with KLC1 antibody (red) and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.



Western blot testing of human 1) HeLa, 2) U-87 MG, 3) SH-SY5Y, 4) COLO-320, 5) HepG2, 6) PC-3 and 7) HACAT cell lysate with KLC1 antibody. Predicted molecular weight: 63-72 kDa (multiple isoforms).



Western blot testing of 1) rat brain, 2) rat skeletal muscle, 3) mouse brain and 4) mouse lung tissue lysate with KLC1 antibody. Predicted molecular weight: 63-72 kDa (multiple isoforms).



Flow cytometry testing of human Caco-2 cells with KLC1 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= KLC1 antibody.

Description

Kinesin light chain 1 is a protein that in humans is encoded by the KLC1 gene. Conventional kinesin is a tetrameric molecule composed of two heavy chains and two light chains, and transports various cargos along microtubules toward their plus ends. The heavy chains provide the motor activity, while the light chains bind to various cargos. This gene encodes a member of the kinesin light chain family. It associates with kinesin heavy chain through an N-terminal domain, and six tetratricopeptide repeat (TPR) motifs are thought to be involved in binding of cargos such as vesicles, mitochondria, and the Golgi complex. Thus, kinesin light chains function as adapter molecules and not motors per se. Although previously named kinesin 2, this gene is not a member of the kinesin-2 / kinesin heavy chain subfamily of kinesin motor proteins. Extensive alternative splicing produces isoforms with different C-termini that are proposed to bind to different cargos; however, the full-length nature and/or biological validity of most of these variants have not been determined.

Application Notes

Optimal dilution of the KLC1 antibody should be determined by the researcher.

Immunogen

An E. coli-derived human protein (amino acids M1-D537) was used as the immunogen for the KLC1 antibody.

Storage

After reconstitution, the KLC1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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