abcam

Product datasheet

Anti-KLC1 antibody [EPR12441(B)] ab174273

KO VALIDATED Recombinant RabMAb

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Overview

Product name	Anti-KLC1 antibody [EPR12441(B)]
Description	Rabbit monoclonal [EPR12441(B)] to KLC1
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), WB, IHC-P, ICC/IF, IP
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Rat
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	U87-MG, 293T, SH-SY5Y, and HeLa whole cell lysate (**ab150035**); Human brain tissue; U87-MG and HeLa cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
Purity	Protein A purified
Clonality	Monoclonal

Clone number	EPR12441(B)
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab174273 in the following tested applications.

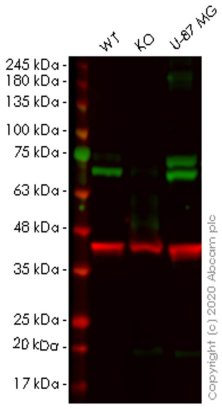
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/10 - 1/100. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB	★★★★★ (1)	1/1000 - 1/10000. Detects a band of approximately 61-70 kDa (predicted molecular weight: 65 kDa).
IHC-P		1/50 - 1/100. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
ICC/IF		1/50 - 1/500.
IP		1/10 - 1/100.

Target

Function	Kinesin is a microtubule-associated force-producing protein that may play a role in organelle transport. The light chain may function in coupling of cargo to the heavy chain or in the modulation of its ATPase activity.
Tissue specificity	Found in a variety of tissues. Mostly abundant in brain and spine.
Sequence similarities	Belongs to the kinesin light chain family. Contains 6 TPR repeats.
Post-translational modifications	Isoform I is phosphorylated on Ser-600. Isoform J is phosphorylated on Ser-631.
Cellular localization	Cytoplasm > cytoskeleton.

Images



Western blot - Anti-KLC1 antibody [EPR12441(B)] (ab174273)

All lanes : Anti-KLC1 antibody [EPR12441(B)] (ab174273) at 1/1000 dilution

Lane 1 : Wild-type HeLa cell lysate
Lane 2 : KLC1 knockout HeLa cell lysate
Lane 3 : U-87 MG cell lysate

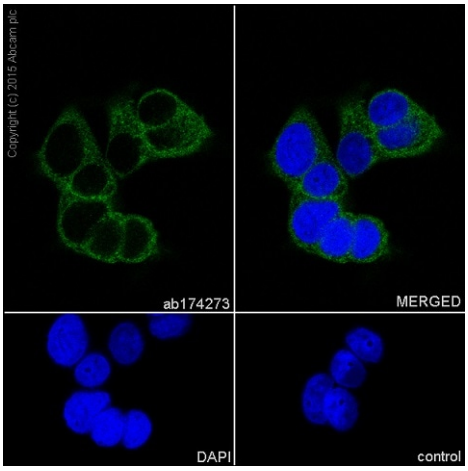
Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) at 1/10000 dilution

Predicted band size: 65 kDa
Observed band size: 65 kDa

Lanes 1-3: Merged signal (red and green). Green - ab174273 observed at 65 kDa. Red - loading control **ab8245** observed at 36 kDa.

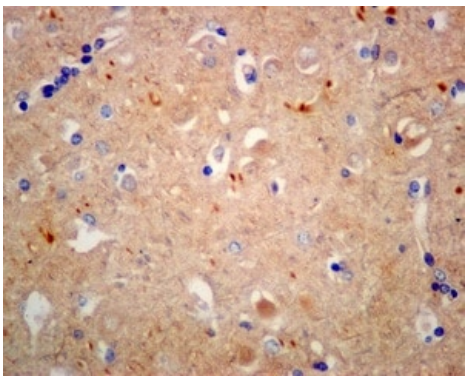
ab174273 Anti-KLC1 antibody [EPR12441(B)] was shown to specifically react with KLC1 in wild-type HeLa cells. Loss of signal was observed when knockout cell line **ab265284** (knockout cell lysate **ab257496**) was used. Wild-type and KLC1 knockout samples were subjected to SDS-PAGE. ab174273 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Immunocytochemistry/ Immunofluorescence - Anti-KLC1 antibody [EPR12441(B)] (ab174273)

Immunocytochemistry/Immunofluorescence analysis of MCF-7 (human breast carcinoma) labelling KLC1 with purified ab174273 at 1/500. Cells were fixed with 100% methanol. An Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody (Ab150077). Nuclei counterstained with DAPI (blue).

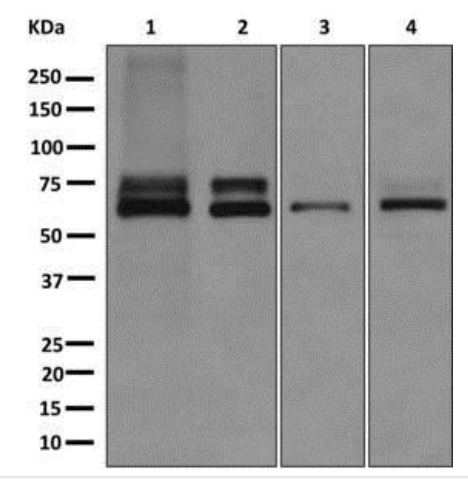
Control: PBS only



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-KLC1 antibody [EPR12441(B)] (ab174273)

Immunohistochemical analysis of paraffin-embedded Human brain tissue labeling KLC1 with ab174273 at 1/50 dilution.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



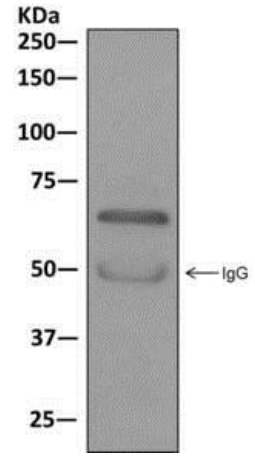
Western blot - Anti-KLC1 antibody [EPR12441(B)] (ab174273)

All lanes : Anti-KLC1 antibody [EPR12441(B)] (ab174273) at 1/1000 dilution

Lane 1 : U87-MG cell lysate
Lane 2 : 293T cell lysate
Lane 3 : SH-SY5Y cell lysate
Lane 4 : HeLa cell lysate

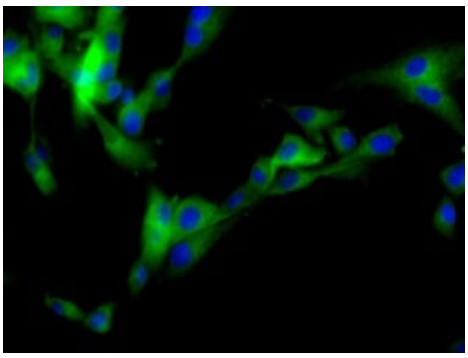
Lysates/proteins at 10 µg per lane.

Predicted band size: 65 kDa



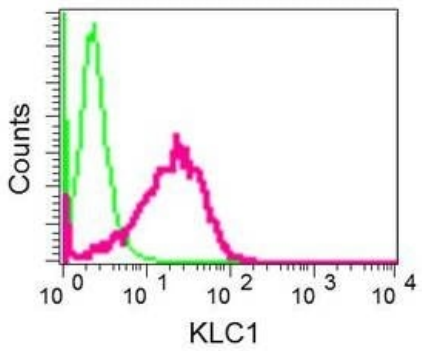
Immunoprecipitation - Anti-KLC1 antibody [EPR12441(B)] (ab174273)

Western blot analysis on immunoprecipitation pellet from SH-SY5Y cell lysate using ab174273 at 1/10 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-KLC1 antibody [EPR12441(B)] (ab174273)

Immunofluorescent analysis of U87-MG cells labeling KLC1 with ab174273 at 1/50 dilution.



Flow Cytometry (Intracellular) - Anti-KLC1 antibody [EPR12441(B)] (ab174273)

Intracellular flow cytometric analysis of permeabilized HeLa cells labeling KLC1with ab174273 at 1/10 dilution (red) or a rabbit IgG (negative) (green).

Anti-KLC1 antibody [EPR12441(B)] (ab174273)

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