

Product datasheet

Anti-KLC1 antibody [EPR12441(B)] ab174273

KO VALIDATED Recombinant RabMAb

★★★★★ [2 Abreviews](#) [5 References](#) [8 Images](#)

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	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

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.

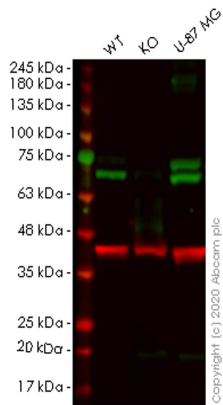
Tissue specificity Found in a variety of tissues. Mostly abundant in brain and spine.

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

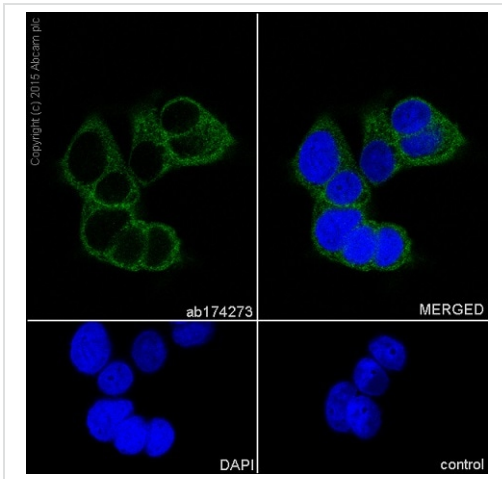
All lanes : Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed ([ab216773](#)) at 1/10000 dilution

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.

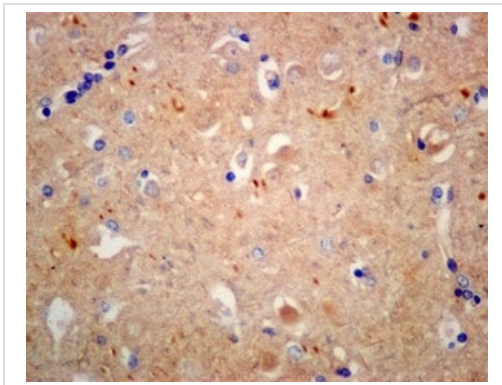
ab174273 Anti-KLC1 antibody [EPR12441(B)] was shown to specifically react with KLC1 in wild-type HeLa cells. Loss of signal was observed when knockout cell line [ab265284](#) (knockout cell lysate [ab257496](#)) was used. Wild-type and KLC1 knockout samples were subjected to SDS-PAGE. ab174273 and Anti-GAPDH 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).

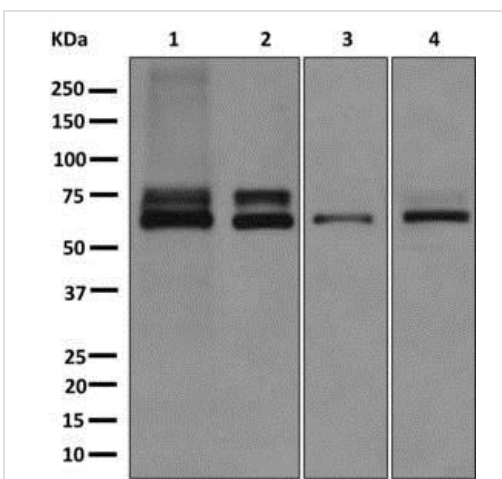
Control: PBS only



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

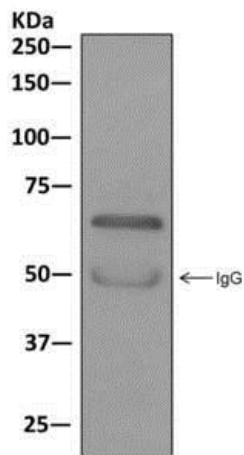
Lane 2 : 293T cell lysate

Lane 3 : SH-SY5Y cell lysate

Lane 4 : HeLa cell lysate

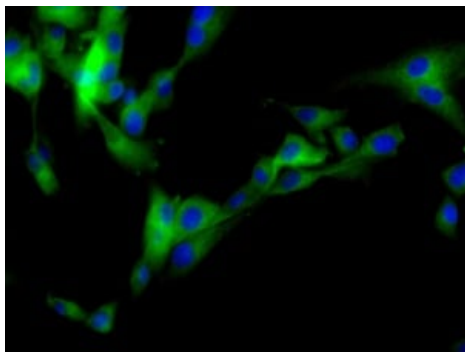
Lysates/proteins at 10 µg per lane.

Predicted band size: 65 kDa



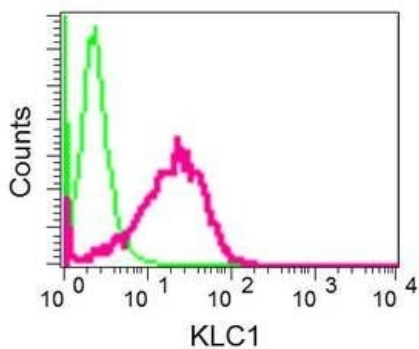
Western blot analysis on immunoprecipitation pellet from SH-SY5Y cell lysate using ab174273 at 1/10 dilution.

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



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

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



Intracellular flow cytometric analysis of permeabilized HeLa cells labeling KLC1 with ab174273 at 1/10 dilution (red) or a rabbit IgG (negative) (green).

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

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

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

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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