

## Product datasheet

# Human KLC1 knockout HeLa cell lysate ab257496

3 Images

### Overview

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<b>Product name</b>	Human KLC1 knockout HeLa cell lysate
<b>Product overview</b>	Knockout cell lysate achieved by CRISPR/Cas9.
<b>Parental Cell Line</b>	HeLa
<b>Organism</b>	Human
<b>Mutation description</b>	Knockout achieved by using CRISPR/Cas9, 5 bp deletion in exon4 and Insertion of the selection cassette in exon4.
<b>Passage number</b>	<20
<b>Knockout validation</b>	Sanger Sequencing, Western Blot (WB)
<b>Reconstitution notes</b>	To use as WB control, resuspend the lyophilizate in 50 µL of LDS* Sample Buffer to have a final concentration of 2 mg/ml. For reducing conditions, we recommend a final concentration of 0.1 M DTT. <i>*Usage of SDS sample buffer is not recommended with these lyophilized lysates.</i>

**Notes**

**Lysate preparation:** Our lysates are made using RIPA buffer to which we add a protease inhibitor cocktail and phosphatase inhibitor cocktail (ratio: 300:100:10). *This means that the protein of interest is denatured.* If you require a native form of the protein please use the live cell version - found [here](#). Please refer to our lysis protocol for further details on how our lysates are prepared.

**User storage instructions:** Lyophilizate may be stored at 4°C. After reconstitution, store at -20°C for short-term storage or -80°C for long-term storage.

Access thousands of knockout cell lysates, generated from commonly used cancer cell lines.

**[See here for more information on knockout cell lysates.](#)**

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**Tested applications**                      **Suitable for:** WB

## Properties

**Storage instructions** Store at -80°C. Please refer to protocols.

Components	1 kit
ab260998 - Human KLC1 knockout HeLa cell lysate	1 x 100µg
ab255929 - Human wild-type HeLa cell lysate	1 x 100µg

**Cell type** epithelial  
**Disease** Adenocarcinoma  
**Gender** Female  
**STR Analysis** Amelogenin X D5S818: 11, 12 D13S317: 12, 13.3 D7S820: 8, 12 D16S539: 9, 10 vWA: 16, 18 TH01: 7 TPOX: 8,12 CSF1PO: 9, 10

## 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.

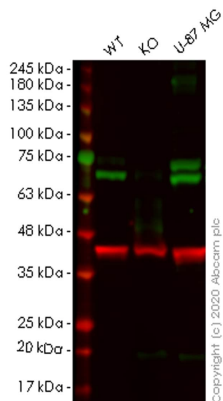
**Cellular localization** Cytoplasm > cytoskeleton.

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab257496 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
WB		Use at an assay dependent concentration. Predicted molecular weight: 65 kDa.

## Images



Western blot - Human KLC1 knockout HeLa cell lysate (ab257496)

**Lane 1:** Wild-type HeLa cell lysate (20 µg)

**Lane 2:** KLC1 knockout HeLa cell lysate (20 µg)

**Lane 3:** U-87 MG cell lysate (20 µg)

**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.

```

Mut  GATGACCTTTTCCCAATGATGAA----CCCAGGGCAAGGAAGTGAAGTGGGTGATG
      |||
WT   GATGACCTTTTCCCAATGATGAAGACGACCCAGGGCAAGGAAGTGAAGTGGGTGATG
  
```

Sanger Sequencing - Human KLC1 knockout HeLa cell lysate (ab257496)

Allele-1: 5 bp deletion in exon4

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Mut  CCCCAATGATGAAGACGACC*****Insertion*****CAGGGCAAGGAAGTGAAGTGA
      |||
WT   CCCCAATGATGAAGACGACC          CAGGGCAAGGAAGTGAAGTGA
  
```

Sanger Sequencing - Human KLC1 knockout HeLa cell lysate (ab257496)

Allele-2: Insertion of the selection cassette in exon4

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