

## Product datasheet

### Anti-LKB1 antibody [EPR19379] ab199970

KO VALIDATED

Recombinant

RabMAb

★★★★★ [1 Abreviews](#) [8 References](#) [7 Images](#)

#### Overview

Product name	Anti-LKB1 antibody [EPR19379]
Description	Rabbit monoclonal [EPR19379] to LKB1
Host species	Rabbit
Tested applications	<b>Suitable for:</b> WB, IP
Species reactivity	<b>Reacts with:</b> Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HEK-293T, Jurkat and K562 whole cell lysates; Human brain, human testis, fetal heart, fetal kidney and fetal testis lysates. IP: K562 and human testis lysates.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</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	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p>
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR19379
Isotype	IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab199970 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	★★★★★ (1)	1/1000. Detects a band of approximately 48, 50 kDa (predicted molecular weight: 45, 49 kDa).
IP		1/100.

## Target

### Function

Essential role in G1 cell cycle arrest. Phosphorylates and activates members of the AMPK-related subfamily of protein kinases. Tumor suppressor.

### Tissue specificity

Ubiquitously expressed. Strongest expression in testis and fetal liver.

### Involvement in disease

Defects in STK11 are a cause of Peutz-Jeghers syndrome (PJS) [MIM:175200]. PJS is a rare hereditary disease in which there is predisposition to benign and malignant tumors of many organ systems. PJS is an autosomal dominant disorder characterized by melanocytic macules of the lips, multiple gastrointestinal hamartomatous polyps and an increased risk for various neoplasms, including gastrointestinal cancer.

Defects in STK11 have been associated with testicular tumors (TEST) [MIM:273300]. A common solid malignancy in males. Germ cell tumors of the testis constitute 95% of all testicular neoplasms.

### Sequence similarities

Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. LKB1 subfamily. Contains 1 protein kinase domain.

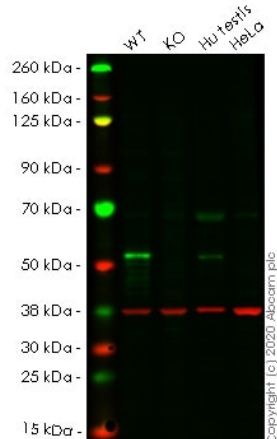
### Post-translational modifications

Phosphorylated by a cAMP-dependent protein kinase.

### Cellular localization

Nucleus. Cytoplasm. Relocates to the cytoplasm when bound to CAB39 and STRAD or CAB39 and ALS2CR2.

## Images



Western blot - Anti-LKB1 antibody [EPR19379]  
(ab199970)

**All lanes** : Anti-LKB1 antibody [EPR19379] (ab199970) at 1/1000 dilution

**Lane 1** : Wild-type HEK-293T cell lysate

**Lane 2** : STK11 knockout HEK-293T cell lysate

**Lane 3** : Hu testis cell lysate

**Lane 4** : HeLa cell lysate

Lysates/proteins at 20 µg per lane.

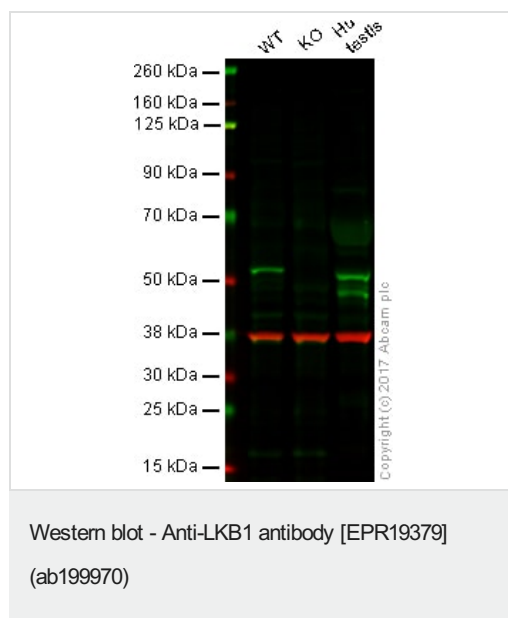
Performed under reducing conditions.

**Predicted band size:** 45, 49 kDa

**Observed band size:** 55 kDa

**Lanes 1- 4:** Merged signal (red and green). Green - ab199970 observed at 55 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) observed at 37 kDa.

ab199970 was shown to react with LKB1 in wild-type HEK-293T cells in western blot. Loss of signal was observed when knockout cell line [ab266647](#) (knockout cell lysate [ab257712](#)) was used. Wild-type HEK-293T and STK11 knockout HEK-293T cell lysates were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. ab199970 and Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) overnight at 4°C at a 1 in 1000 dilution and a 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.



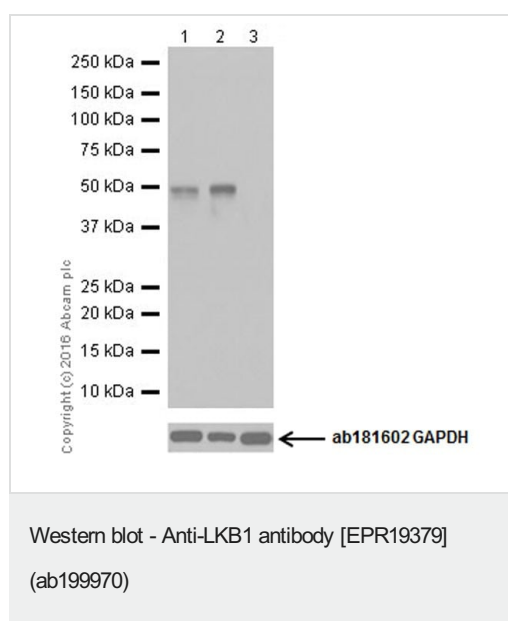
**Lane 1:** Wild-type HAP1 whole cell lysate (20 µg)

**Lane 2:** STK11 knockout HAP1 whole cell lysate (20 µg)

**Lane 3:** Hu Testis whole cell lysate (20 µg)

**Lanes 1 - 3:** Merged signal (red and green). Green - ab199970 observed at 50 kDa. Red - loading control, [ab8245](#), observed at 37 kDa.

ab199970 was shown to specifically react with STK11 in wild-type HAP1 cells. No band was observed when STK11 knockout samples were examined. Wild-type and STK11 knockout samples were subjected to SDS-PAGE. Ab199970 and [ab8245](#) (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/10,000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed [ab216773](#) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed [ab216776](#) secondary antibodies at 1/10,000 dilution for 1 hour at room temperature before imaging.



**All lanes :** Anti-LKB1 antibody [EPR19379] (ab199970) at 1/1000 dilution

**Lane 1 :** Jurkat (Human T cell leukemia cell line from peripheral blood) whole cell lysate

**Lane 2 :** K562 (Human chronic myelogenous leukemia cell line from bone marrow) whole cell lysate

**Lane 3 :** HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate

Lysates/proteins at 20 µg per lane.

## Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

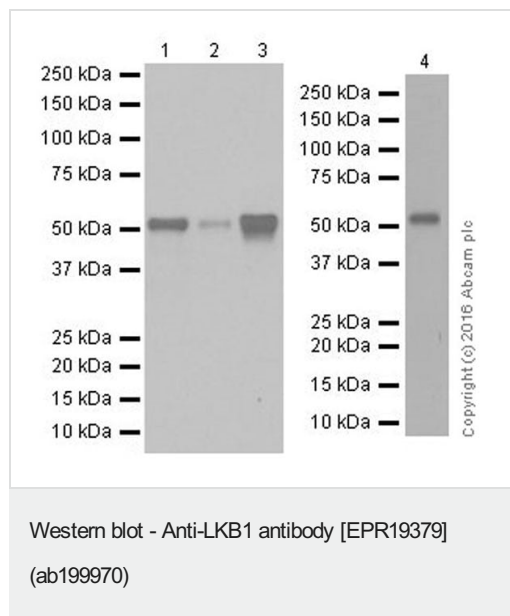
**Predicted band size:** 45, 49 kDa

**Observed band size:** 50 kDa

**Exposure time:** 15 seconds

Blocking/Dilution buffer: 5% NFDm/TBST.

Negative control: HeLa (PMID 11297520; PMID24086281; PMID 19340305).



**All lanes :** Anti-LKB1 antibody [EPR19379] (ab199970) at 1/1000 dilution

**Lane 1 :** Human brain lysate

**Lane 2 :** Human fetal heart lysate

**Lane 3 :** Human fetal kidney lysate

**Lane 4 :** Human fetal testis lysate

Lysates/proteins at 10 µg per lane.

## Secondary

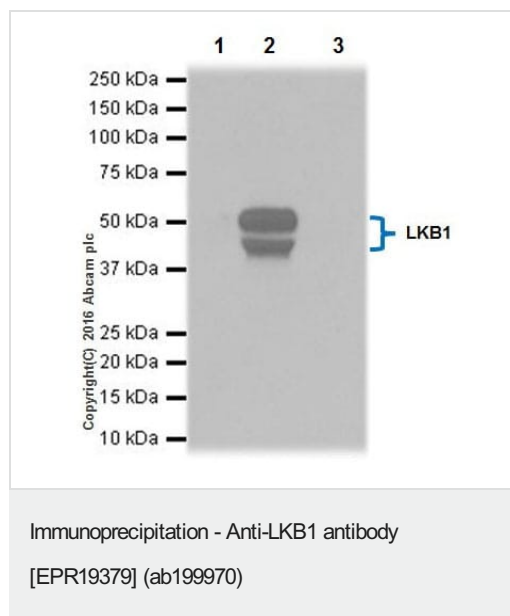
**All lanes :** Goat Anti-Rabbit IgG Peroxidase Conjugate, specific to the non-reduced form of IgG at 1/10000 dilution

**Predicted band size:** 45, 49 kDa

**Observed band size:** 50 kDa

**Exposure time:** 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.



LKB1 was immunoprecipitated from 1 mg of K562 (Human chronic myelogenous leukemia cell line from bone marrow) whole cell lysate with ab199970 at 1/100 dilution. Western blot was performed from the immunoprecipitate using ab199970 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/10000 dilution.

Lane 1: K562 whole cell lysate, 10 µg (Input).

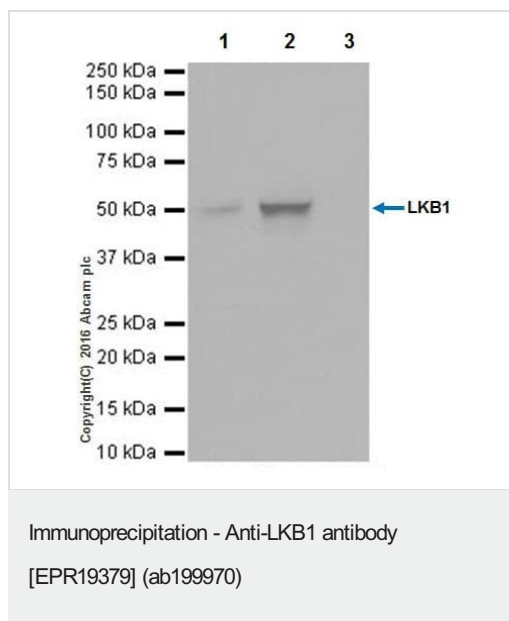
Lane 2: ab199970 IP in K562 whole cell lysate.

Lane 3: Rabbit IgG, monoclonal [EPR25A]-Isotype Control ([ab172730](#)) instead of ab199970 in K562 whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 minutes.

LKB1 isoforms: PMID 18854309.



LKB1 was immunoprecipitated from 1 mg of Human testis lysate with ab199970 at 1/100 dilution. Western blot was performed from the immunoprecipitate using ab199970 at 1/500 dilution. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/1000 dilution.

Lane 1: Human testis lysate, 10 µg (Input).

Lane 2: ab199970 IP in Human testis lysate .

Lane 3: Rabbit IgG, monoclonal [EPR25A]-Isotype Control ([ab172730](#)) instead of ab199970 in Human testis lysate .

Blocking and dilution buffer and concentration: 5% NFDm/TBST.

Exposure time: 3 minutes.

LKB1 isoforms: PMID 18854309.

Why choose a recombinant antibody?

<p><b>Research with confidence</b> Consistent and reproducible results</p>	<p><b>Long-term and scalable supply</b> Recombinant technology</p>
<p><b>Success from the first experiment</b> Confirmed specificity</p>	<p><b>Ethical standards compliant</b> Animal-free production</p>

Anti-LKB1 antibody [EPR19379] (ab199970)

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

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