

## Product datasheet

### HRP Anti-Lamin B1 antibody [EPR8985(B)] - Nuclear Loading Control ab194109


KO VALIDATED

Recombinant

RabMAb

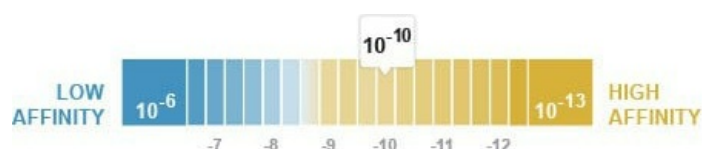
[16 References](#) [4 Images](#)

#### Overview

Product name	HRP Anti-Lamin B1 antibody [EPR8985(B)] - Nuclear Loading Control
Description	HRP Rabbit monoclonal [EPR8985(B)] to Lamin B1 - Nuclear Loading Control
Host species	Rabbit
Conjugation	HRP
Tested applications	<b>Suitable for:</b> WB, IHC-P
Species reactivity	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse, Rat 
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Jurkat, MOLT4, Y79, CaCo 2 whole cell lysates. IHC: Normal human colon tissue.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: <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> For more information <a href="#">see here</a> . 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> .

#### 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. Avoid freeze / thaw cycle. Store In the Dark.
Dissociation constant (K <sub>D</sub> )	K <sub>D</sub> = 1.95 x 10 <sup>-10</sup> M



[Learn more about K<sub>D</sub>](#)

<b>Storage buffer</b>	pH: 7.40 Preservative: 0.1% Proclin 300 Solution Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, PBS
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR8985(B)
<b>Isotype</b>	IgG

## Applications

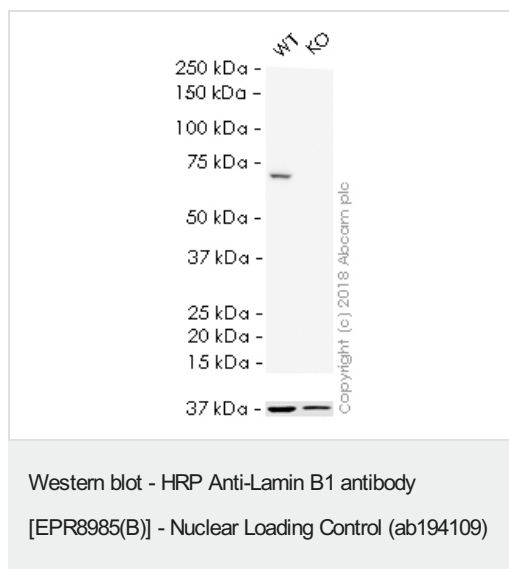
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab194109 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
<b>WB</b>		1/5000. Detects a band of approximately 70 kDa (predicted molecular weight: 66 kDa).
<b>IHC-P</b>		1/500. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. <b>ab199507</b> - Rabbit monoclonal IgG (HRP), is suitable for use as an isotype control with this antibody.

## Target

<b>Function</b>	Lamins are components of the nuclear lamina, a fibrous layer on the nucleoplasmic side of the inner nuclear membrane, which is thought to provide a framework for the nuclear envelope and may also interact with chromatin.
<b>Involvement in disease</b>	Defects in LMNB1 are the cause of leukodystrophy demyelinating autosomal dominant adult-onset (ADLD) [MIM:169500]. ADLD is a slowly progressive and fatal demyelinating leukodystrophy, presenting in the fourth or fifth decade of life. Clinically characterized by early autonomic abnormalities, pyramidal and cerebellar dysfunction, and symmetric demyelination of the CNS. It differs from multiple sclerosis and other demyelinating disorders in that neuropathology shows preservation of oligodendroglia in the presence of subtotal demyelination and lack of astrogliosis.
<b>Sequence similarities</b>	Belongs to the intermediate filament family.
<b>Post-translational modifications</b>	B-type lamins undergo a series of modifications, such as farnesylation and phosphorylation. Increased phosphorylation of the lamins occurs before envelope disintegration and probably plays a role in regulating lamin associations.
<b>Cellular localization</b>	Nucleus inner membrane.

## Images



**All lanes :** HRP Anti-Lamin B1 antibody [EPR8985(B)] - Nuclear Loading Control (ab194109) at 1/5000 dilution

**Lane 1 :** Wild-type HAP1 whole cell lysate

**Lane 2 :** LMNB1 (Lamin B1) knockout HAP1 whole cell lysate

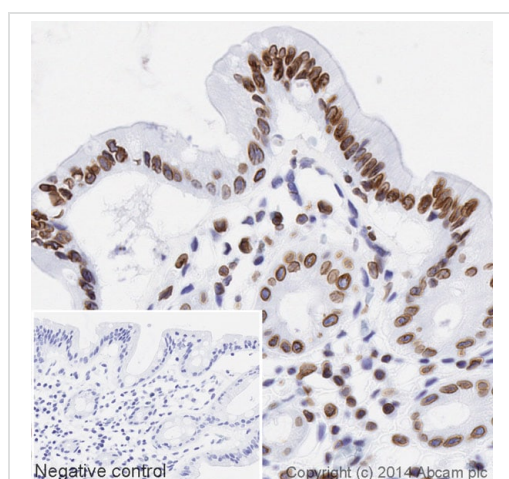
Lysates/proteins at 20 µg per lane.

**Predicted band size:** 66 kDa

**Observed band size:** 70 kDa

**Exposure time:** 3 minutes

ab194109 was shown to specifically react with Lamin B1 in wild-type HAP1 cells as signal was lost in LMNB1 (Lamin B1) knockout cells. Wild-type and LMNB1 (Lamin B1) knockout samples were subjected to SDS-PAGE. Ab194109 and **ab184095** (Mouse monoclonal [mAbcam 9484] to GAPDH - Loading Control (Alexa Fluor® 680) loading control) were incubated overnight at 4°C at 1/5000 dilution and 1/20000 dilution respectively. The loading control was imaged using the Licor Odyssey CLx prior to blots being developed with ECL technique.

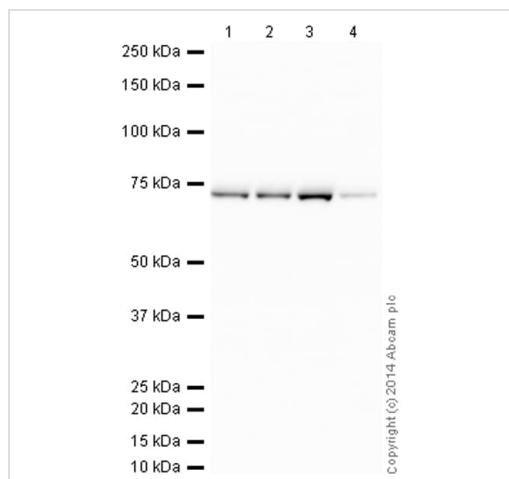


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - HRP Anti-Lamin B1 antibody [EPR8985(B)] - Nuclear Loading Control (ab194109)

IHC image of Lamin B1 staining in a section of formalin-fixed paraffin-embedded normal human colon tissue\*, performed on a Leica BOND. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20mins. The section was then incubated with ab194109 at 1/500 dilution, for 15 mins at room temperature. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset negative control image is taken from an identical assay without primary antibody.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

\*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre



Western blot - HRP Anti-Lamin B1 antibody  
[EPR8985(B)] - Nuclear Loading Control (ab194109)

**All lanes :** HRP Anti-Lamin B1 antibody [EPR8985(B)] - Nuclear Loading Control (ab194109) at 1/5000 dilution

**Lane 1 :** Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate

**Lane 2 :** MOLT4 (Human acute lymphoblastic leukemia cell line) Whole Cell Lysate

**Lane 3 :** Y79 (Human retinoblastoma cell line) Whole Cell Lysate

**Lane 4 :** Caco 2 (Human colonic carcinoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 66 kDa

**Observed band size:** 70 kDa

**Exposure time:** 1 minute

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 3% milk before being incubated with ab194109 overnight at 4°C. Antibody binding was visualised using ECL development solution **ab133406**.

### 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

HRP Anti-Lamin B1 antibody [EPR8985(B)] -  
Nuclear Loading Control (ab194109)

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

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