

## Product datasheet

### Anti-HMGB2 antibody [EPR6301] ab124670

**KO VALIDATED** Recombinant RabMAb<sup>®</sup>

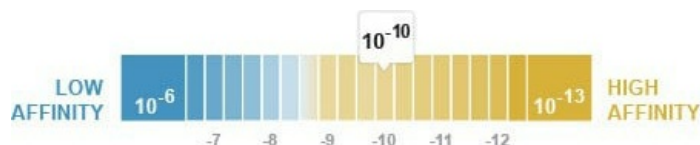
★★★★☆ [2 Abreviews](#) [14 References](#) [7 Images](#)

#### Overview

<b>Product name</b>	Anti-HMGB2 antibody [EPR6301]
<b>Description</b>	Rabbit monoclonal [EPR6301] to HMGB2
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> ICC/IF, WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide within Human HMGB2 (N terminal). The exact sequence is proprietary.
<b>Positive control</b>	WB: HEK-293T, HAP1, K562, HeLa and PC12 cell lysates. ICC/IF: PC-12 cells. IHC-P: Human breast tissue.
<b>General notes</b>	<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

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
<b>Dissociation constant (K<sub>D</sub>)</b>	K <sub>D</sub> = 6.03 x 10 <sup>-10</sup> M



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

<b>Storage buffer</b>	<p>pH: 7.20</p> <p>Preservative: 0.05% Sodium azide</p> <p>Constituents: 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture</p>
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	supernatant
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR6301
<b>Isotype</b>	IgG

## Applications

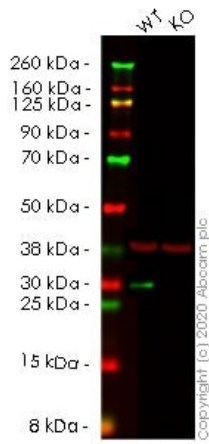
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab124670 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		1/500.
WB	★★★★★ (1)	1/10000 - 1/50000. Predicted molecular weight: 24 kDa.
IHC-P		1/250 - 1/500. Perform heat mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol.

## Target

<b>Function</b>	DNA binding proteins that associates with chromatin and has the ability to bend DNA. Binds preferentially single-stranded DNA. Involved in V(D)J recombination by acting as a cofactor of the RAG complex. Acts by stimulating cleavage and RAG protein binding at the 23 bp spacer of conserved recombination signal sequences (RSS).
<b>Sequence similarities</b>	Belongs to the HMGB family. Contains 2 HMG box DNA-binding domains.
<b>Cellular localization</b>	Nucleus. Chromosome.

## Images



Western blot - Anti-HMGB2 antibody [EPR6301] (ab124670)

**All lanes** : Anti-HMGB2 antibody [EPR6301] (ab124670) at 1/2000 dilution

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

**Lane 2** : HMGB2 knockout HEK-293T cell lysate

Lysates/proteins at 20 µg per lane.

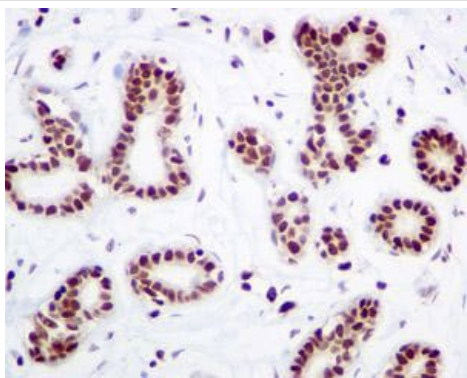
Performed under reducing conditions.

**Predicted band size:** 24 kDa

**Observed band size:** 24 kDa

**Lanes 1- 2:** Merged signal (red and green). Green - ab124670 observed at 24 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) observed at 37 kDa.

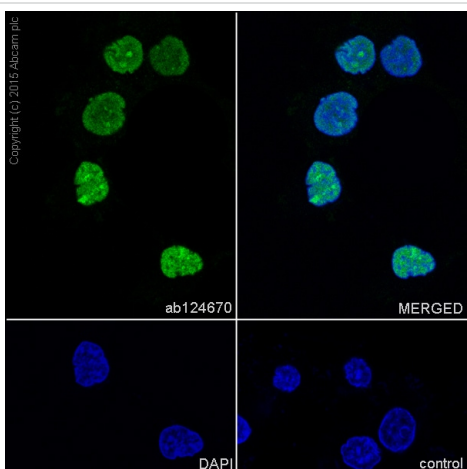
ab124670 was shown to react with HMGB2 in wild-type HEK-293T cells in western blot. Loss of signal was observed when knockout cell line [ab266358](#) (knockout cell lysate [ab257156](#)) was used. Wild-type HEK-293T and HMGB2 knockout HEK-293T cell lysates were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. ab124670 and Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) overnight at 4°C at a 1 in 2000 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.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HMGB2 antibody [EPR6301] (ab124670)

ab124670, at a 1/250 dilution, staining HMGB2 in paraffin embedded Human breast tissue by Immunohistochemistry.

Perform heat mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol.



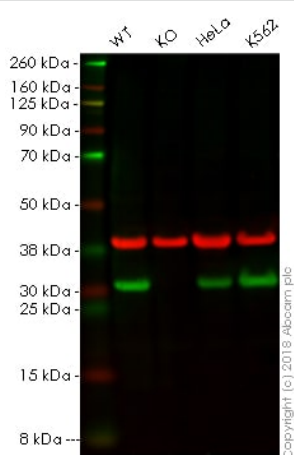
Immunocytochemistry/ Immunofluorescence - Anti-HMGB2 antibody [EPR6301] (ab124670)

Immunocytochemistry/Immunofluorescence analysis of PC-12 cells labelling HMGB2 with ab124670 at 1/500. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100.

**ab150077**, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody.

Control: PBS only.

Nuclear counter stain: DAPI.



Western blot - Anti-HMGB2 antibody [EPR6301] (ab124670)

**All lanes** : Anti-HMGB2 antibody [EPR6301] (ab124670) at 1/10000 dilution

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

**Lane 2** : HMGB2 knockout HAP1 whole cell lysate

**Lane 3** : HeLa whole cell lysate

**Lane 4** : K562 whole cell lysate

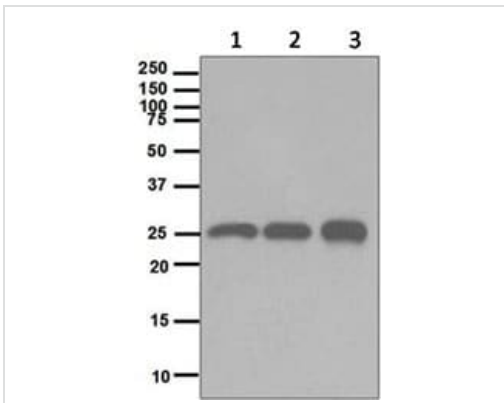
Lysates/proteins at 20 µg per lane.

**Predicted band size:** 24 kDa

**Lanes 1 - 4:** Merged signal (red and green). Green - ab124670 observed at 24 kDa. Red - loading control, **ab9484**, observed at 37

kDa.

ab124670 was shown to specifically react with HMGB2 in wild-type HAP1 cells as signal was lost in HMGB2 knockout cells. Wild-type and HMGB2 knockout samples were subjected to SDS-PAGE. Ab124670 and **ab9484** (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/10000 dilution and 1/20000 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 1/20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-HMGB2 antibody [EPR6301] (ab124670)

**All lanes** : Anti-HMGB2 antibody [EPR6301] (ab124670) at 1/10000 dilution

**Lane 1** : K562 cell lysates

**Lane 2** : HeLa cell lysates

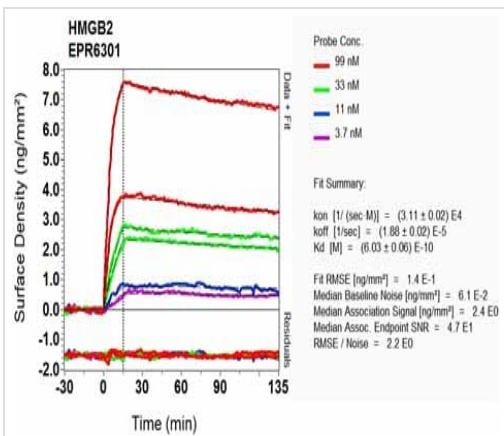
**Lane 3** : PC12 cell lysates

Lysates/proteins at 10 µg per lane.

### Secondary

**All lanes** : Goat-anti-rabbit HRP at 1/2000 dilution

**Predicted band size:** 24 kDa







OI-RD Scanning - Anti-HMGB2 antibody [EPR6301] (ab124670)

Equilibrium dissociation constant ( $K_D$ )

Learn more about  $K_D$

[Click here to learn more about  \$K\_D\$](#)

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-HMGB2 antibody [EPR6301] (ab124670)

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

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