

## Product datasheet

# Anti-HMGB2 antibody ab113929

**KO** VALIDATED

4 Images

### Overview

<b>Product name</b>	Anti-HMGB2 antibody
<b>Description</b>	Rabbit polyclonal to HMGB2
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, ICC/IF, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse, Rabbit, Horse, Cow, Dog, Chimpanzee, Macaque monkey, Gorilla, Chinese hamster, Orangutan
<b>Immunogen</b>	Synthetic peptide corresponding to Human HMGB2 aa 150 to the C-terminus conjugated to keyhole limpet haemocyanin. (Peptide available as <a href="#">ab133234</a> )
<b>Positive control</b>	This antibody gave a positive signal in HeLa Nuclear lysate as well as the following whole cell lysates: HepG2; U20S; A549; MCF7; K562. This antibody gave a positive result in IF in the following methanol fixed cell lines: HepG2 It also gave a positive result in FFPE human kidney RCC tissue sections
<b>General notes</b>	<p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications &amp; species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.</p> <p>In preparation for this, we have started to update the applications &amp; species that this product is Abpromise guaranteed for.</p> <p>We are also updating the applications &amp; species that this product has been "predicted to work with," however this information is not covered by our Abpromise guarantee.</p> <p>Applications &amp; species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.</p> <p>Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team</p>

ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.

## Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS  Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

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Our [Abpromise guarantee](#) covers the use of **ab113929** 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
IHC-P		Use a concentration of 5 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
ICC/IF		Use a concentration of 5 µg/ml.
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 28 kDa (predicted molecular weight: 24 kDa).

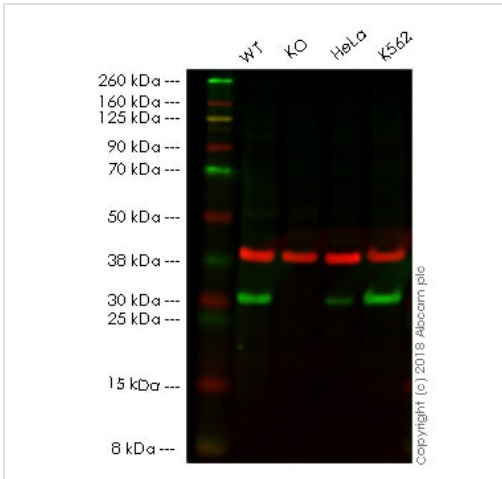
## Target

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<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

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Western blot - Anti-HMGB2 antibody (ab113929)

**All lanes :** Anti-HMGB2 antibody (ab113929) at 1 µg/ml

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

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

**Lane 3 :** HeLa whole cell lysate

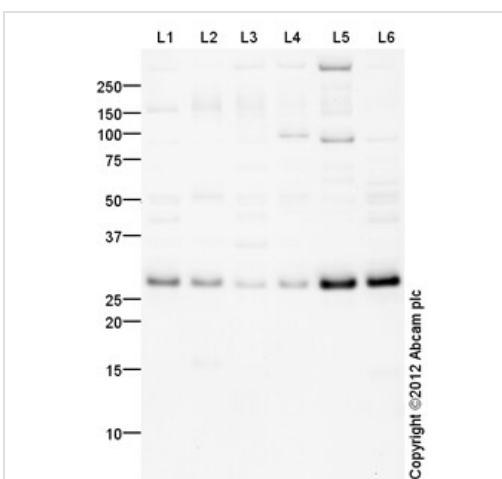
**Lane 4 :** K562 whole cell lysate

Lysates/proteins at 20 µg per lane.

**Predicted band size:** 24 kDa

**Lanes 1 -4:** Merged signal (red and green). Green - ab113929 observed at 30 kDa. Red - loading control, [ab9484](#), observed at 37 kDa.

ab113929 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. Ab113929 and [ab9484](#) (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1 µg/ml 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 (ab113929)

**All lanes :** Anti-HMGB2 antibody (ab113929) at 1 µg/ml

**Lane 1 :** HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate

**Lane 2 :** U2OS (Human osteosarcoma cell line) Whole Cell Lysate

**Lane 3 :** A549 (Human lung adenocarcinoma epithelial cell line) Whole Cell Lysate

**Lane 4 :** MCF7 (Human breast adenocarcinoma cell line) Whole Cell Lysate

**Lane 5 :** HeLa (Human epithelial carcinoma cell line) Nuclear Lysate

**Lane 6 :** K562 (Human erythromyeloblastoid leukemia cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

## Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) preadsorbed ([ab97080](#)) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

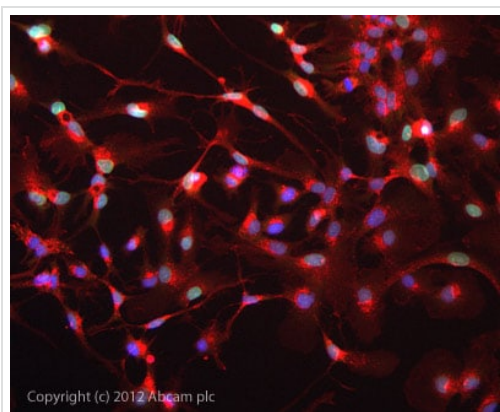
**Predicted band size:** 24 kDa

**Observed band size:** 28 kDa

[why is the actual band size different from the predicted?](#)

**Additional bands at:** 100 kDa, 300 kDa, 50 kDa. We are unsure as to the identity of these extra bands.

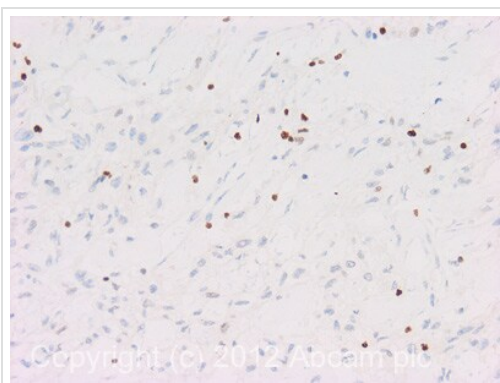
**Exposure time:** 8 minutes



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Immunocytochemistry/ Immunofluorescence - Anti-HMGB2 antibody (ab113929)

ICC/IF image of ab113929 stained HepG2 cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab113929 at 5µg/ml overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti- rabbit ([ab96899](#)) IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HMGB2 antibody (ab113929)

IHC image of ab113929 staining in human kidney RCC formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab113929, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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.

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

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