abcam

Product datasheet

Anti-HMGB2 antibody [EPR6302] ab133540

KO VALIDATED Recombinant RabMAb

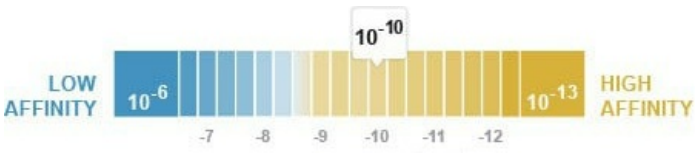
2 References 7 Images

Overview

Product name	Anti-HMGB2 antibody [EPR6302]
Description	Rabbit monoclonal [EPR6302] to HMGB2
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P **Unsuitable for:** ICC/IF or IP
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HEK-293T, HAP1, K562, HL-60, C6, RAW 264.7, and PC-12 cell lysates. IHC-P: Human breast tissue and Human colon carcinoma tissue.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Dissociation constant (K_D)	$K_D = 2.97 \times 10^{-10}$ M



Learn more about K_D

Storage buffer	pH: 7.2 Preservative: 0.05% Sodium azide

	Constituents: 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR6302
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab133540 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

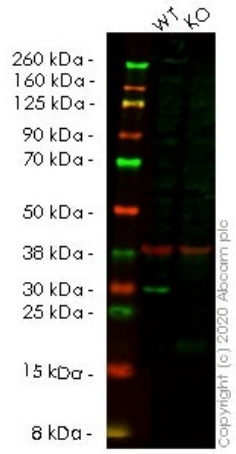
Application	Abreviews	Notes
WB		1/1000 - 1/10000. Predicted molecular weight: 24 kDa.
IHC-P		1/250 - 1/500. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Application notes Is unsuitable for ICC/IF or IP.

Target

Function	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).
Sequence similarities	Belongs to the HMGB family. Contains 2 HMG box DNA-binding domains.
Cellular localization	Nucleus. Chromosome.

Images



Western blot - Anti-HMGB2 antibody [EPR6302] (ab133540)

All lanes : Anti-HMGB2 antibody [EPR6302] (ab133540) at 1/1000 dilution

Lane 1 : Wild-type HEK-293T cell lysate
Lane 2 : HMGB2 knockout HEK-293T cell lysate

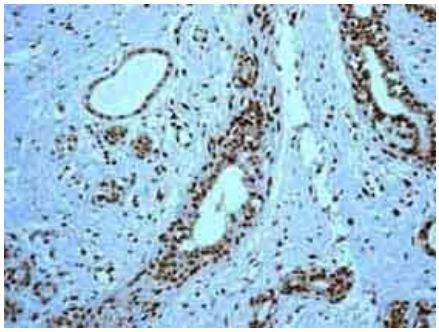
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 24 kDa
Observed band size: 24 kDa

Lanes 1- 2: Merged signal (red and green). Green - ab133540 observed at 24 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) observed at 37 kDa.

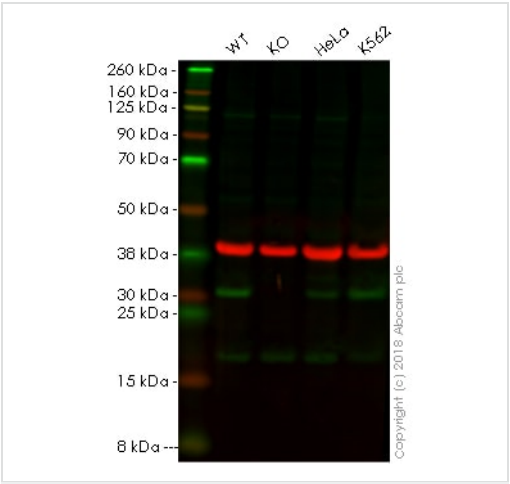
ab133540 was shown to react with HMGB2 in wild-type HEK-293T cells in western blot. Loss of signal was observed when knockout cell line **ab266358** (knockout cell lysate **ab257156**) was used. Wild-type HEK-293T and HMGB2 knockout HEK-293T cell lysates were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. ab133540 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.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HMGB2 antibody [EPR6302] (ab133540)

Immunohistochemistry analysis of paraffin embedded Human breast tissue labelling HMGB2 with ab133540 at 1/250 dilution.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Western blot - Anti-HMGB2 antibody [EPR6302] (ab133540)

All lanes : Anti-HMGB2 antibody [EPR6302] (ab133540) at 1/1000 dilution

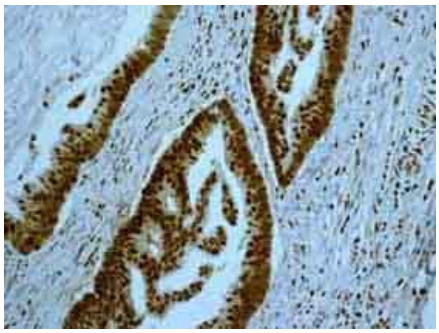
Lane 1 : Wild-type HAP1 whole cell lysate
Lane 2 : HMGB2 knockout HAP1 whole cell lysate
Lane 3 : HeLa cell lysate
Lane 4 : K562 cell lysate

Lysates/proteins at 20 µg per lane.

Predicted band size: 24 kDa
Observed band size: 24 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab133540 observed at 24 kDa. Red - loading control, **ab9484**, observed at 37 kDa.

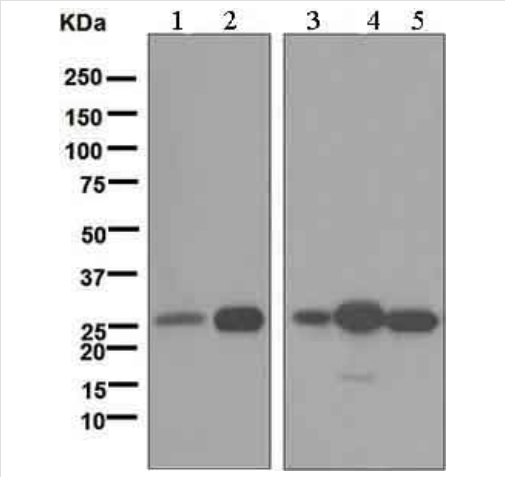
ab133540 was shown to recognize HMGB2 in wild-type HAP1 cells as signal was lost at the expected MW in HMGB2 knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and HMGB2 knockout samples were subjected to SDS-PAGE. Ab133540 and **ab9484** (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 1000 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.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HMGB2 antibody [EPR6302] (ab133540)

Immunohistochemistry analysis of paraffin embedded Human colon carcinoma tissue labelling HMGB2 with ab133540 at 1/250 dilution.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



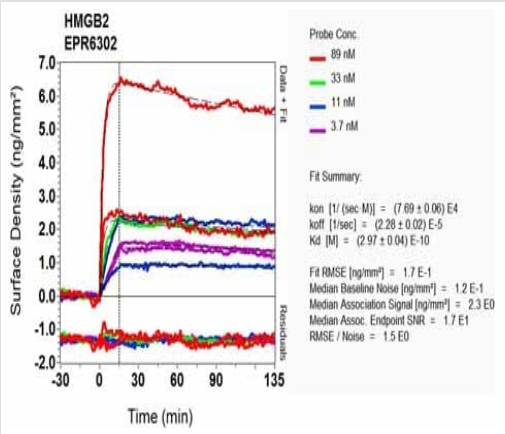
Western blot - Anti-HMGB2 antibody [EPR6302] (ab133540)

All lanes : Anti-HMGB2 antibody [EPR6302] (ab133540) at 1/1000 dilution

Lane 1 : K562 cell lysate
Lane 2 : HL-60 cell lysate
Lane 3 : C6 cell lysate
Lane 4 : RAW 264.7 cell lysate
Lane 5 : PC-12 cell lysate

Lysates/proteins at 10 µg per lane.

Predicted band size: 24 kDa

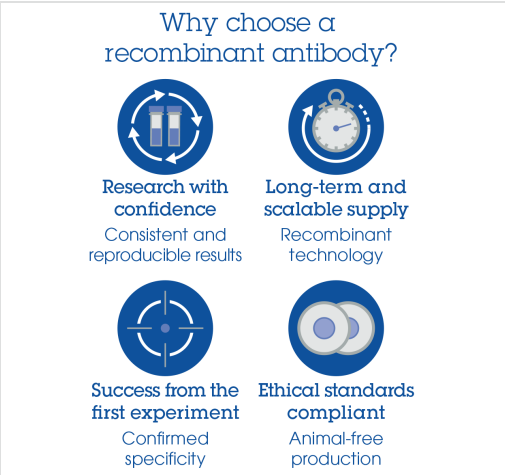


OI-RD Scanning - Anti-HMGB2 antibody [EPR6302] (ab133540)

Equilibrium disassociation constant (K_D)

Learn more about K_D

Click here to learn more about K_D



Anti-HMGB2 antibody [EPR6302] (ab133540)

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors