

## Product datasheet

# Anti-Glucocorticoid Receptor antibody [EPR19621] ab183127

**KO VALIDATED** Recombinant RabMAB

★★★★★ [2 Abreviews](#) [6 References](#) [12 Images](#)

### Overview

<b>Product name</b>	Anti-Glucocorticoid Receptor antibody [EPR19621]
<b>Description</b>	Rabbit monoclonal [EPR19621] to Glucocorticoid Receptor
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, ICC/IF, Flow Cyt (Intra)
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: Human fetal heart and fetal kidney lysates; HeLa, A549, U-87 MG, HEK-293 and A431 whole cell lysates; HEK-293 whole cell lysate transfected with human Glucocorticoid Receptor with GFP-Myc tag. IHC-P: Human glioma and cervix carcinoma tissues; Mouse liver tissue; Rat hippocampus tissue. ICC/IF: HeLa cells. Flow Cyt (intra): HeLa cells.
<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 +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
<b>Purity</b>	Protein A purified

<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR19621
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab183127 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>	★★★★★ (2)	1/2000. Detects a band of approximately 86, 83 kDa (predicted molecular weight: 86 kDa).
<b>IHC-P</b>		1/2000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
<b>ICC/IF</b>		1/500.
<b>Flow Cyt (Intra)</b>		1/500. <b>ab172730</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

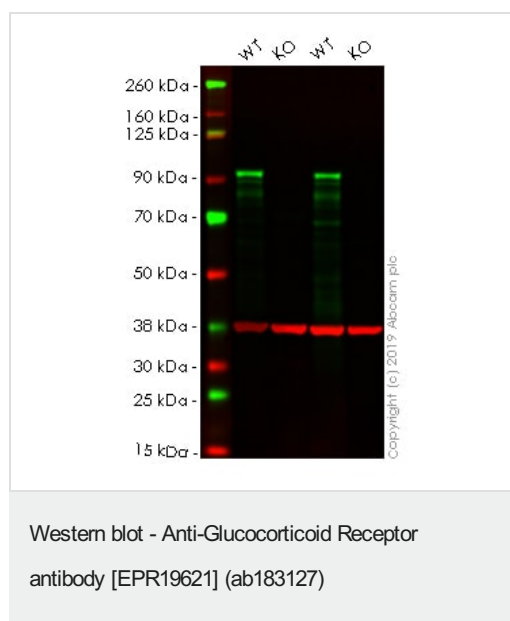
## Target

<b>Function</b>	Receptor for glucocorticoids (GC). Has a dual mode of action: as a transcription factor that binds to glucocorticoid response elements (GRE) and as a modulator of other transcription factors. Affects inflammatory responses, cellular proliferation and differentiation in target tissues. Could act as a coactivator for STAT5-dependent transcription upon growth hormone (GH) stimulation and could reveal an essential role of hepatic GR in the control of body growth. Involved in chromatin remodeling. Plays a significant role in transactivation. Involved in nuclear translocation.
<b>Tissue specificity</b>	Widely expressed. In the heart, detected in left and right atria, left and right ventricles, aorta, apex, intraventricular septum, and atrioventricular node as well as whole adult and fetal heart.
<b>Involvement in disease</b>	Defects in NR3C1 are a cause of glucocorticoid resistance (GCRES) [MIM:138040]; also known as cortisol resistance. It is a hypertensive, hyperandrogenic disorder characterized by increased serum cortisol concentrations. Inheritance is autosomal dominant.
<b>Sequence similarities</b>	Belongs to the nuclear hormone receptor family. NR3 subfamily. Contains 1 nuclear receptor DNA-binding domain.
<b>Domain</b>	Composed of three domains: a modulating N-terminal domain, a DNA-binding domain and a C-terminal ligand-binding domain.
<b>Post-translational modifications</b>	Increased proteasome-mediated degradation in response to glucocorticoids. Phosphorylated in the absence of hormone; becomes hyperphosphorylated in the presence of glucocorticoid. The Ser-203-phosphorylated form is mainly cytoplasmic, and the Ser-211-phosphorylated form is nuclear. Transcriptional activity correlates with the amount of phosphorylation at Ser-211. Sumoylated; this reduces transcription transactivation. Ubiquitinated; restricts glucocorticoid-mediated transcriptional signaling.

## Cellular localization

Cytoplasm. Nucleus. Cytoplasmic in the absence of ligand, nuclear after ligand-binding and Nucleus. Localized largely in the nucleus.

## Images



**All lanes** : Anti-Glucocorticoid Receptor antibody [EPR19621] (ab183127) at 1/1000 dilution

**Lane 1** : Wild-type HeLa cell lysate

**Lane 2** : NR3C1 knockout HeLa cell lysate

**Lane 3** : Wild-type A549 cell lysate

**Lane 4** : NR3C1 knockout A549 cell lysate

Lysates/proteins at 20 µg per lane.

### Secondary

**All lanes** : Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed ([ab216773](#)) at 1/20000 dilution

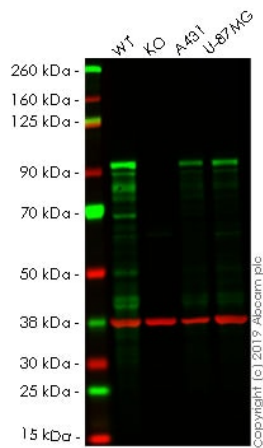
Performed under reducing conditions.

**Predicted band size:** 86 kDa

**Observed band size:** 90-100 kDa

**Lanes 1-4:** Merged signal (red and green). Green - ab183127 observed at 90-100 kDa. Red - loading control [ab8245](#) observed at 37 kDa.

ab183127 Anti-Glucocorticoid Receptor antibody [EPR19621] was shown to specifically react with Glucocorticoid Receptor in wild-type HeLa cells. Loss of signal was observed when knockout cell line [ab261766](#) (knockout cell lysate [ab257009](#)) was used. Wild-type and Glucocorticoid Receptor knockout samples were subjected to SDS-PAGE. ab183127 and Anti-alpha Tubulin antibody [EP1332Y] - Microtubule Marker ([ab52866](#)) were incubated overnight at 4°C at 1 in 1000 dilution and 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.



Western blot - Anti-Glucocorticoid Receptor antibody [EPR19621] (ab183127)

**All lanes :** Anti-Glucocorticoid Receptor antibody [EPR19621] (ab183127) at 1/2000 dilution

**Lane 1 :** Wild-type A549 (Human lung carcinoma cell line) whole cell lysate

**Lane 2 :** NR3C1 knockout A549 (Human lung carcinoma cell line) whole cell lysate

**Lane 3 :** A-431 (Human epidermoid carcinoma cell line) whole cell lysate

**Lane 4 :** U-87 MG (Human glioblastoma-astrocytoma epithelial cell line) whole cell lysate

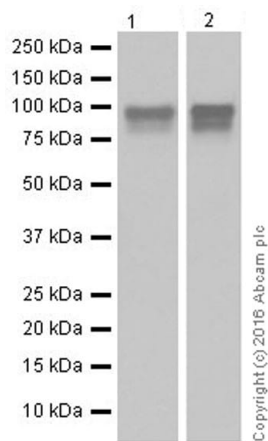
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

**Predicted band size:** 86 kDa

**Lanes 1 -4:** Merged signal (red and green). Green - ab183127 observed at 90 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

ab183127 was shown to recognize NR3C1 in wild-type A549 cells as signal was lost at the expected MW in NR3C1 knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and NR3C1 knockout samples were subjected to SDS-PAGE. Ab183127 and **ab8245** (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/2000 dilution and 1/1000 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-Glucocorticoid Receptor antibody [EPR19621] (ab183127)

**All lanes :** Anti-Glucocorticoid Receptor antibody [EPR19621] (ab183127) at 1/2000 dilution

**Lane 1 :** Human fetal heart lysate

**Lane 2 :** Human fetal kidney 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

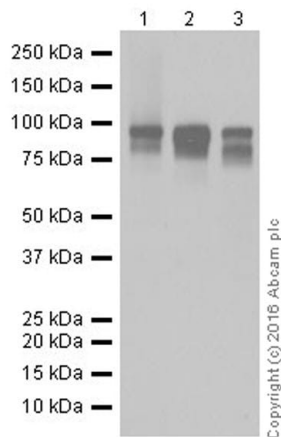
**Predicted band size:** 86 kDa

**Observed band size:** 83,86 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure times: Lane 1: 30 seconds; Lane 2: 15 seconds.

This antibody may recognize eight isoforms. The predicted MW are from 61KDa to 86KDa in human, respectively.



Western blot - Anti-Glucocorticoid Receptor antibody [EPR19621] (ab183127)

**All lanes :** Anti-Glucocorticoid Receptor antibody [EPR19621] (ab183127) at 1/2000 dilution

**Lane 1 :** HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate

**Lane 2 :** HEK-293 (Human epithelial cell line from embryonic kidney) whole cell lysate

**Lane 3 :** A431 (Human epidermoid carcinoma cell line) 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

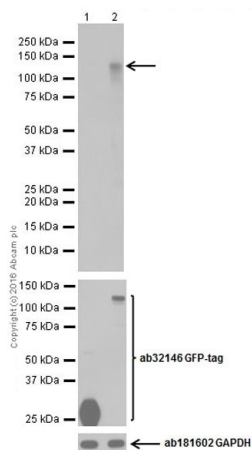
**Predicted band size:** 86 kDa

**Observed band size:** 83,86 kDa

**Exposure time:** 10 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.

This antibody may recognize eight isoforms. The predicted MW are from 61KDa to 86KDa in human, respectively.



Western blot - Anti-Glucocorticoid Receptor antibody [EPR19621] (ab183127)

**All lanes :** Anti-Glucocorticoid Receptor antibody [EPR19621] (ab183127) at 1/20000 dilution

**Lane 1 :** Empty vector with GFP-Myc tag (vector control) transfected HEK-293 (Human epithelial cell line from embryonic kidney) whole cell lysate

**Lane 2 :** HEK-293 (Human epithelial cell line from embryonic kidney) whole cell lysate transfected with human Glucocorticoid Receptor with GFP-Myc tag

Lysates/proteins at 10 µg per lane.

### Secondary

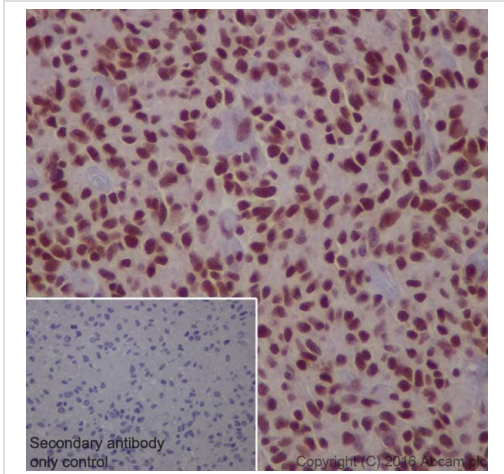
**All lanes :** Goat Anti-Rabbit IgG Peroxidase Conjugate, specific to the non-reduced form of IgG at 1/10000 dilution

**Predicted band size:** 86 kDa

**Observed band size:** 112 kDa

Blocking/Dilution buffer: 5% NFD/MTBST.

Exposure time: 0.5 second.

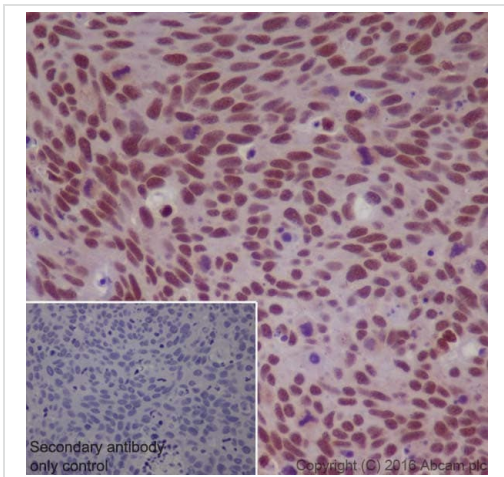


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Glucocorticoid Receptor antibody [EPR19621] (ab183127)

Immunohistochemical analysis of paraffin-embedded Human glioma tissue labeling Glucocorticoid Receptor with ab183127 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution. Nucleus staining on tumor cells of the Human glioma is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is **ab97051** at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



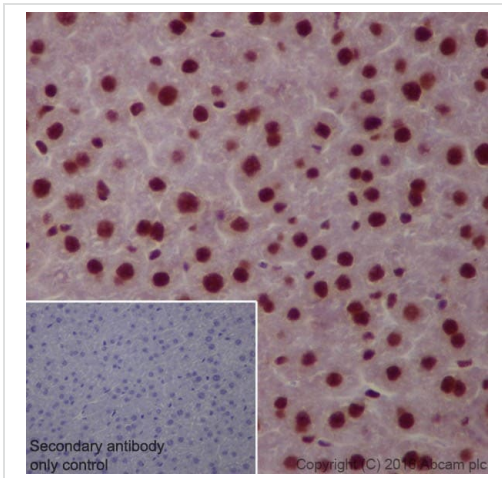
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Glucocorticoid Receptor antibody [EPR19621] (ab183127)

Immunohistochemical analysis of paraffin-embedded Human cervix carcinoma tissue labeling Glucocorticoid Receptor with ab183127 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution. Nucleus staining on tumor cells of the cervix carcinoma is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is **ab97051** at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



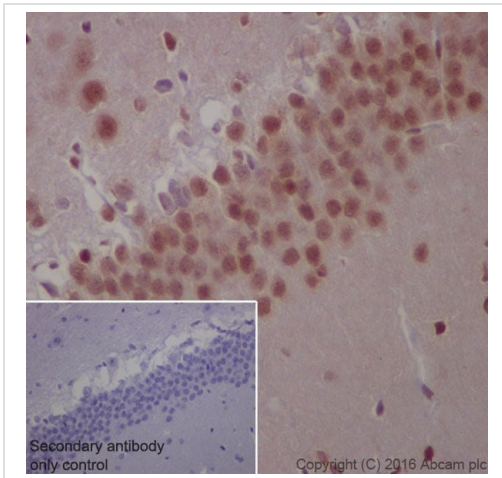


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Glucocorticoid Receptor antibody [EPR19621] (ab183127)

Immunohistochemical analysis of paraffin-embedded Mouse liver tissue labeling Glucocorticoid Receptor with ab183127 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution. Nucleus staining on hepatocytes of the mouse liver is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is **ab97051** at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



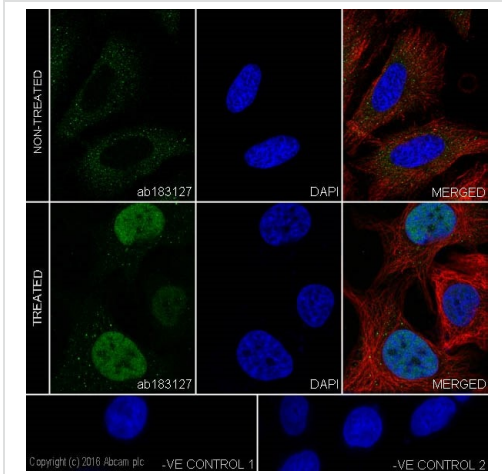
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Glucocorticoid Receptor antibody [EPR19621] (ab183127)

Immunohistochemical analysis of paraffin-embedded Rat hippocampus tissue labeling Glucocorticoid Receptor with ab183127 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution. Nucleus staining on rat hippocampus is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is **ab97051** at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.





Immunocytochemistry/ Immunofluorescence - Anti-Glucocorticoid Receptor antibody [EPR19621] (ab183127)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (Human epithelial cell line from cervix adenocarcinoma) cells labeling Glucocorticoid Receptor with ab183127 at 1/500 dilution, followed by Goat Anti-Rabbit IgG (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green).

The results show signal translocation after dexamethasone (100 nM for 2 hours) treatment on HeLa cells. PMID: 24291004.

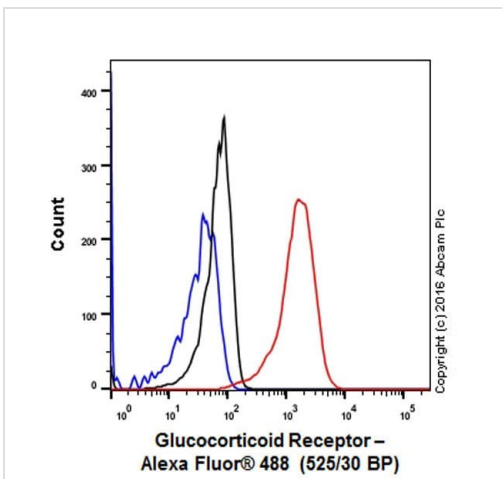
The nuclear counter stain is DAPI (blue).

Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Loading Control ([ab7291](#)) at 1/1000 dilution and Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) preadsorbed ([ab150120](#)) at 1/1000 dilution (red).

The negative controls are as follows:

-ve control 1: ab183127 at 1/500 dilution followed by [ab150120](#) at 1/1000 dilution.

-ve control 2: [ab7291](#) at 1/1000 dilution followed by [ab150077](#) at 1/1000 dilution.



Flow Cytometry (Intracellular) - Anti-Glucocorticoid Receptor antibody [EPR19621] (ab183127)

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed HeLa (Human epithelial cell line from cervix adenocarcinoma) cells labeling Glucocorticoid Receptor with ab183127 at 1/500 dilution (red) compared with a Rabbit IgG, monoclonal [EPR25A]-isotype control ([ab172730](#)) (black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat anti Rabbit IgG (Alexa Fluor® 488) at 1/500 dilution was used as the secondary antibody.

### 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

Anti-Glucocorticoid Receptor antibody [EPR19621]  
(ab183127)

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