**Product datasheet**

# Anti-Glucocorticoid Receptor antibody [EPR19621]

**ab183127**

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## Properties

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<tr>
<th>Form</th>
<th>Liquid</th>
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<tbody>
<tr>
<td>Storage buffer</td>
<td>Preservative: 0.01% Sodium azide. Constituents: 59% PBS, 40% Glycerol, 0.05% BSA</td>
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<tr>
<td>Purity</td>
<td>Protein A purified</td>
</tr>
<tr>
<td>Clonality</td>
<td>Monoclonal</td>
</tr>
<tr>
<td>Clone number</td>
<td>EPR19621</td>
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<td>Isotype</td>
<td>IgG</td>
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**Function**

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.

**Tissue specificity**

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.

**Involvement in disease**

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.

**Sequence similarities**

Belongs to the nuclear hormone receptor family. NR3 subfamily. Contains 1 nuclear receptor DNA-binding domain.

**Domain**

Composed of three domains: a modulating N-terminal domain, a DNA-binding domain and a C-terminal ligand-binding domain.

**Post-translational modifications**

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**


### Applications

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.

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<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tr>
<td>WB</td>
<td>1/2000. Detects a band of approximately 86, 83 kDa (predicted molecular weight: 86 kDa).</td>
<td></td>
</tr>
<tr>
<td>ICC/IF</td>
<td>1/500.</td>
<td></td>
</tr>
<tr>
<td>Flow Cyt</td>
<td>1/500. <strong>ab172730</strong> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.</td>
<td></td>
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</table>
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

*why is the actual band size different from the predicted?*

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

*why is the actual band size different from the predicted?*
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.

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

Why is the actual band size different from the predicted?

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time: 0.5 second.
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.

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.
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.

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.
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 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.
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