**Overview**

**Product name**
Anti-Glucocorticoid Receptor antibody - ChIP Grade

**Description**
Rabbit polyclonal to Glucocorticoid Receptor - ChIP Grade

**Host species**
Rabbit

**Specificity**
This antibody detects both the unactivated and activated forms of GR.

**Tested applications**
Suitable for: IHC-P, ChIP, ICC/IF, GSA, ICC, IP, WB

**Species reactivity**
Reacts with: Mouse, Rat, Rabbit, Human, Non human primates, Reptile

**Predicted to work with**: Sheep

**Immunogen**
Synthetic peptide corresponding to Human Glucocorticoid Receptor aa 150-175.

**Sequence**:
APTEKEFKTHSDVESQHNLKGQTG

**Positive control**
WB: A549, HeLa, MCF7, T-47D and MDA-MB-231 membrane enriched extracts; Mouse brain extract.

**Properties**

**Form**
Liquid

**Storage instructions**
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.

**Storage buffer**
Preservative: 0.05% Sodium azide
Constituent: 99% PBS

**Purity**
Whole antiserum

**Clonality**
Polyclonal

**Isotype**
IgG

**Applications**

Our Abpromise guarantee covers the use of **ab3671** in the following tested applications.
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

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

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<th>Abreviews</th>
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<tr>
<td>IHC-P</td>
<td></td>
<td>1/250.</td>
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<tr>
<td>ChIP</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>ICC/IF</td>
<td>⭐⭐⭐⭐⭐</td>
<td>1/100.</td>
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<tr>
<td>GSA</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>ICC</td>
<td></td>
<td>1/100.</td>
</tr>
<tr>
<td>IP</td>
<td>⭐⭐⭐⭐⭐</td>
<td>Use at an assay dependent concentration.</td>
</tr>
<tr>
<td>WB</td>
<td>⭐⭐⭐⭐⭐</td>
<td>1/100. Detects a band of approximately 97 kDa (predicted molecular weight: 86 kDa).</td>
</tr>
<tr>
<td>EMSA</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
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</table>
All lanes: Anti-Glucocorticoid Receptor antibody - ChIP Grade (ab3671) at 1/1000 dilution

Lane 1: A549 (human lung carcinoma cell line) membrane enriched extract
Lane 2: MCF7 (human breast adenocarcinoma cell line) membrane enriched extract
Lane 3: T-47D membrane enriched extract
Lane 4: MDA-MB-231 (human breast adenocarcinoma cell line) membrane enriched extract
Lane 5: HeLa (human epithelial cell line from cervix adenocarcinoma) membrane enriched extract
Lane 6: Mouse brain tissue extract

Lysates/proteins at 30 µg per lane.

Predicted band size: 86 kDa

Immunocytochemistry/Immunofluorescence analysis of 293 cells labeling Glucocorticoid Receptor (green) with ab3671 at 1/100. F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue). Cells were fixed with formaldehyde and incubated with the primary antibody overnight at 4°C. A DyLight 488-conjugated secondary antibody was used. 60X magnification. Right - negative control.

Immunocytochemistry/Immunofluorescence analysis of A2058 cells labeling Glucocorticoid Receptor (green) with ab3671 at 1/100. F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue). Cells were fixed with formaldehyde and incubated with the primary antibody overnight at 4°C. A DyLight 488-conjugated secondary antibody was used. 60X magnification. Right - negative control.
Human lymphocytes cells stained for Glucocorticoid Receptor using ab3671 at 1/100 dilution in ICC.

Immunocytochemistry/Immunofluorescence analysis of HeLa cells labeling Glucocorticoid Receptor (green) with ab3671 at 1/100. F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue). Cells were fixed with formaldehyde and incubated with the primary antibody overnight at 4°C. A DyLight 488-conjugated secondary antibody was used. 60X magnification. Right - negative control.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Thamnophis sirtalis brain tissue sections labeling Glucocorticoid Receptor with ab3671 at 1/250. Samples were blocked with 10% goat serum in 0.1M PBS. Samples were incubated with the primary antibody for 48 hours at 4°C. A biotin-conjugated goat anti-rabbit was used as the secondary antibody.
**Western blot - Anti-Glucocorticoid Receptor antibody - ChIP Grade (ab3671)**

**All lanes**: Anti-Glucocorticoid Receptor antibody - ChIP Grade (ab3671) at 1/1000 dilution

**Lane 1**: Cell lysate prepared from rabbit reticulocyte transfected with human GR recombinant protein.

**Lane 2**: Cell lysate prepared from mock translated lysate.

Lysates/proteins at 2 µg per lane.

**Secondary**

**All lanes**: HRP conjugated goat polyclonal to rabbit IgG at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size**: 86 kDa

**Observed band size**: 94 kDa

why is the actual band size different from the predicted?

**Exposure time**: 1 minute

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

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