abcam

Product datasheet

Anti-Glucocorticoid Receptor antibody ab3671

4 Abreviews 2 References 5 Images

Overview

Product name	Anti-Glucocorticoid Receptor antibody
Description	Rabbit polyclonal to Glucocorticoid Receptor
Host species	Rabbit
Specificity	This antibody detects both the unactivated and activated forms of GR.
Tested applications	**Suitable for:** IHC-P, ICC/IF, WB
Species reactivity	**Reacts with:** Mouse, Human, Snake
Immunogen	Synthetic peptide corresponding to Human Glucocorticoid Receptor aa 150-175. Sequence: APTEKEFPKTHSDVSSEQQHLKGQTG Run BLAST with Run BLAST with
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. 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 ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

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

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab3671 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		1/250.
ICC/IF	★★★☆☆ (1)	1/250.
WB	★★★★☆ (2)	1/500 - 1/2500. Detects a band of approximately 97 kDa (predicted molecular weight: 86 kDa).

Target

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.

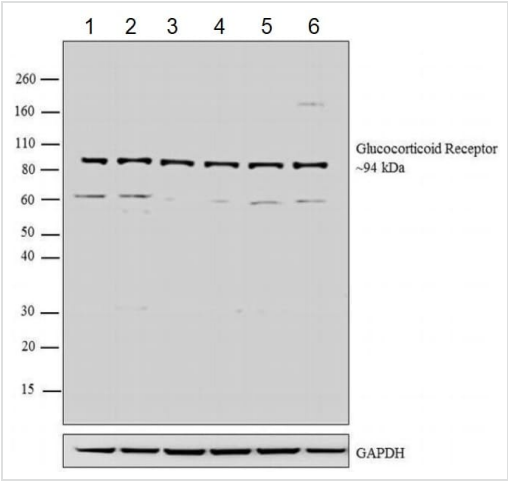
Sequence similarities Belongs to the nuclear hormone receptor family. NR3 subfamily.
Contains 1 nuclear receptor DNA-binding domain.

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

Images



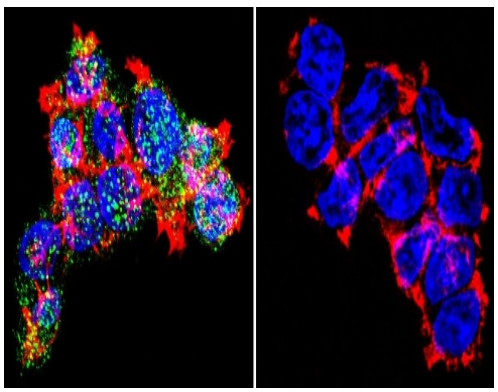
Western blot - Anti-Glucocorticoid Receptor antibody (ab3671)

All lanes : Anti-Glucocorticoid Receptor antibody (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

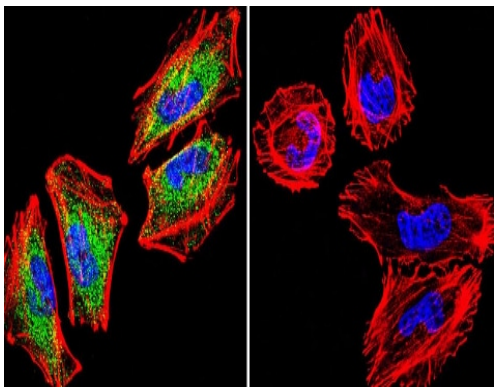
Lysates/proteins at 30 µg per lane.

Predicted band size: 86 kDa



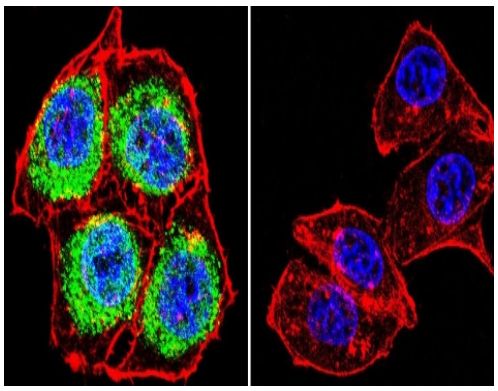
Immunocytochemistry/ Immunofluorescence - Anti-Glucocorticoid Receptor antibody - ChIP Grade (ab3671)

Immunocytochemistry/Immunofluorescence analysis of HEK-293 (Human epithelial cell line from embryonic kidney) 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.



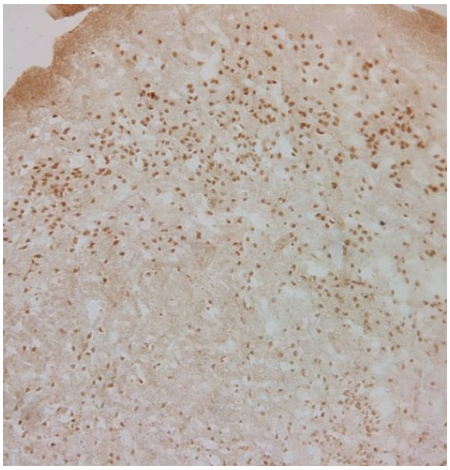
Immunocytochemistry/ Immunofluorescence - Anti-Glucocorticoid Receptor antibody - ChIP Grade (ab3671)

Immunocytochemistry/Immunofluorescence analysis of A2058 (Human metastatic melanoma cell line) 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 - Anti-Glucocorticoid Receptor antibody - ChIP Grade (ab3671)

Immunocytochemistry/Immunofluorescence analysis of HeLa (Human epithelial adenocarcinoma cell line) 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) - Anti-Glucocorticoid Receptor antibody - ChIP Grade (ab3671)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Thamnophis sirtalis (Common garter snake) 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.

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