abcam

Product datasheet

Anti-Glucocorticoid Receptor antibody ab227524

6 Images

Overview

Product name	Anti-Glucocorticoid Receptor antibody
Description	Rabbit polyclonal to Glucocorticoid Receptor
Host species	Rabbit
Tested applications	**Suitable for:** WB, IP, IHC-P, ICC/IF
Species reactivity	**Reacts with:** Human **Predicted to work with:** Sheep, Cow, Cat
Immunogen	Recombinant fragment within Human Glucocorticoid Receptor (internal sequence). The exact sequence is proprietary. Database link: **P04150**
Positive control	WB: HeLa whole cell extract; Jurkat and Raji whole cell lysates. IP: HeLa whole cell extract. IHC-P: Human colon carcinoma tissue. ICC/IF: A431 cells.
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 long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.00 Preservative: 0.01% Thimerosal (merthiolate) Constituents: 1.21% Tris, 0.75% Glycine, 20% Glycerol (glycerin, glycerine)
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab227524 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		1/500 - 1/3000. Predicted molecular weight: 86 kDa.
IP		1/500 - 1/1000.
IHC-P		1/100 - 1/1000.
ICC/IF		1/100 - 1/1000.

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.

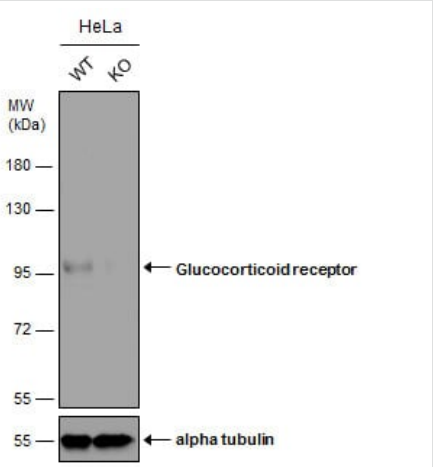
Sequence similarities Belongs to the nuclear hormone receptor family. NR3 subfamily.
Contains 1 nuclear receptor DNA-binding domain.

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 (ab227524)

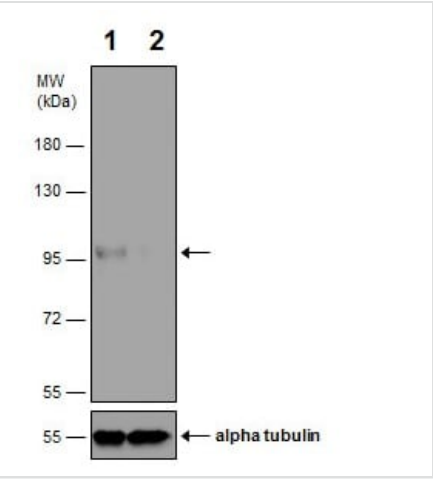
All lanes : Anti-Glucocorticoid Receptor antibody (ab227524) at 1/1000 dilution

Lane 1 : WT HeLa cell extract
Lane 2 : Glucocorticoid Receptor Knockout HeLa cell extracts

Lysates/proteins at 30 µg per lane.

Secondary
All lanes : HRP-conjugated anti-rabbit IgG

Predicted band size: 86 kDa



Western blot - Anti-Glucocorticoid Receptor antibody (ab227524)

All lanes : Anti-Glucocorticoid Receptor antibody (ab227524) at 1/1000 dilution

Lane 1 : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell extract
Lane 2 : Glucocorticoid Receptor knockout HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell extract

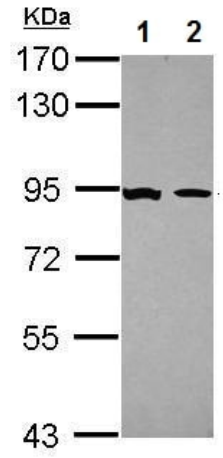
Lysates/proteins at 30 µg per lane.

Secondary
All lanes : HRP-conjugated anti-rabbit IgG

Developed using the ECL technique.

Predicted band size: 86 kDa

7.5% SDS-PAGE gel.



Western blot - Anti-Glucocorticoid Receptor antibody (ab227524)

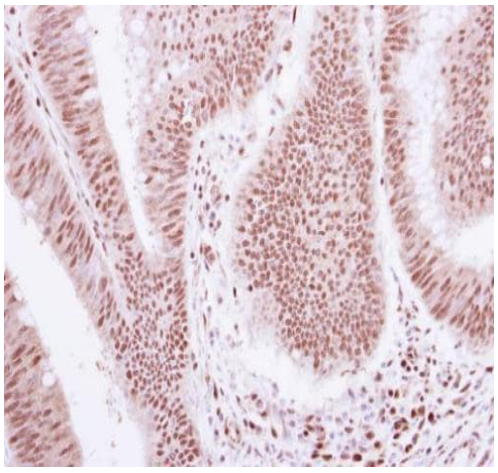
All lanes : Anti-Glucocorticoid Receptor antibody (ab227524) at 1/1000 dilution

Lane 1 : Jurkat (human T cell leukemia cell line from peripheral blood) whole cell lysate
Lane 2 : Raji (human Burkitt's lymphoma cell line) whole cell lysate

Lysates/proteins at 30 µg per lane.

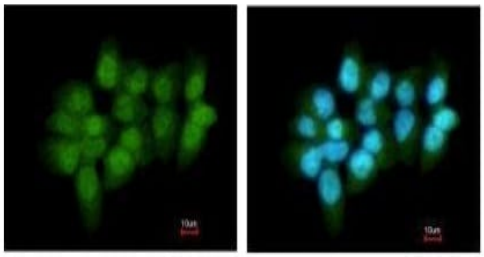
Predicted band size: 86 kDa

7.5% SDS-PAGE gel.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Glucocorticoid Receptor antibody (ab227524)

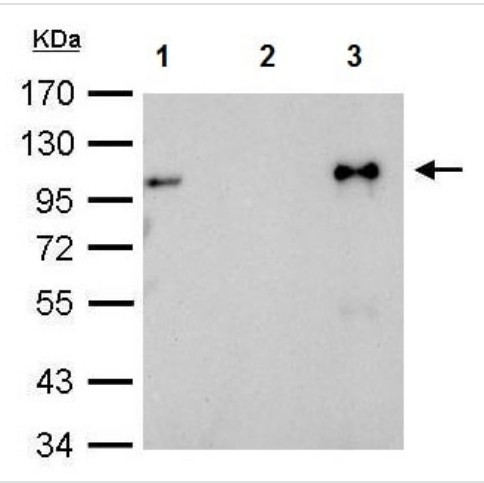
Paraffin-embedded human colon carcinoma tissue stained for Glucocorticoid Receptor using ab227524 at 1/250 dilution in immunohistochemical analysis.



Immunocytochemistry/ Immunofluorescence - Anti-Glucocorticoid Receptor antibody (ab227524)

Paraformaldehyde-fixed A431 (human epidermoid carcinoma cell line) cells stained for Glucocorticoid Receptor (green) using ab227524 at 1/200 dilution in ICC/IF.

Nuclear counterstain: Hoechst 33342 (blue).



Immunoprecipitation - Anti-Glucocorticoid Receptor antibody (ab227524)

Glucocorticoid Receptor was immunoprecipitated from 1 mg HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate with 2.5 µg of ab227524. Western blot was performed from the immunoprecipitate using ab227524 at 1/1000 dilution.

Lane 1: HeLa whole cell lysate 40 µg (Input).
Lane 2: 2.5 µg preimmune rabbit IgG instead of ab227524 in HeLa whole cell lysate.
Lane 3: ab227524 IP in HeLa whole cell lysate.

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