abcam

Product datasheet

Anti-Glucocorticoid Receptor beta antibody ab3581

5 References 2 Images

Overview

Product name	Anti-Glucocorticoid Receptor beta antibody
Description	Rabbit polyclonal to Glucocorticoid Receptor beta
Tested applications	**Suitable for:** ICC/IF, IHC-P, Flow Cyt, ICC, IP, WB
Species reactivity	**Reacts with:** Sheep, Human, Pig
Immunogen	Synthetic peptide corresponding to Human Glucocorticoid Receptor beta aa 728-742. Sequence: NVMWLKPESTSHTLI (Peptide available as ab39765) Run BLAST with Run BLAST with

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 **ab3581** 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

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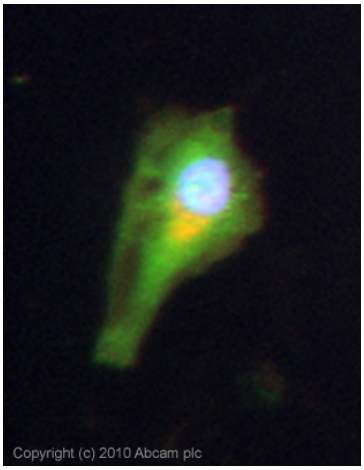
ICC/IF		Use a concentration of 5 µg/ml. Fixation: 4% paraformaldehyde for 15 minutes at room temperature. Permeabilisation: PBS containing 0.01% saponin for 15 mins Blocking: 1% BSA in PBS Primary: overnight at 4ºC
EMSA		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. PubMed: 20438742Sample Preparation: endogenous peroxidase blocked with 0.3% hydrogen peroxide. Antigen retrieval: Heat induced antigen retrieval performed in 0.01M Tris-EDTA pH 9.0. Primary antibody: overnight at 4°C
Flow Cyt		Use at an assay dependent concentration. ab171870-Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.
ICC		1/1500.
IP		Use at an assay dependent concentration. Sample preparation: RIPA buffer containing protease inhibitors was added to cell lysate. Primary antibody: 1:10 dilution for 2 h on ice Prewashed magnetic beads added to lysate mixture and incubated overnight at +4ºC. After washing, sample reducing buffer was added and boiled (5 min, 95ºC)
WB		1/500. Detects a band of approximately 90 kDa (predicted molecular weight: 83 kDa).Can be blocked with Human Glucocorticoid Receptor beta peptide (ab39765). Sample preparation: Lysates boiled in reducing buffer for 5 min. 20µg of protein loaded Blocking agent: 5% non-fat milk in Tris buffered saline (TBS) Primary antibody: overnight at 4°C

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.

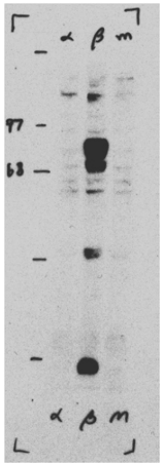
	Sumoylated; this reduces transcription transactivation. Ubiquitinated; restricts glucocorticoid-mediated transcriptional signaling.
Cellular localization	Cytoplasm. Nucleus. Cytoplasmic in the absence of ligand, nuclear after ligand-binding and Nucleus. Localized largely in the nucleus.

Images



Immunocytochemistry/ Immunofluorescence - Anti-Glucocorticoid Receptor beta antibody (ab3581)

ICC/IF image of ab3581 stained HeLa cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab3581, 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



Western blot - Anti-Glucocorticoid Receptor beta antibody (ab3581)

Anti-Glucocorticoid Receptor beta antibody (ab3581) at 1/500 dilution + COS-74 whole cell extract transfected with Glucocorticoid Receptor beta

Predicted band size : 83 kDa

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