

Anti-Glucocorticoid Receptor/NR3C1 Antibody Picoband™

Catalog Number: PB9232

About NR3C1

The glucocorticoid receptor (GR, or GCR), also known as NR3C1, is the receptor to which cortisol and other glucocorticoids bind. In humans, the GR protein is encoded by NR3C1 gene which is located on chromosome 5 (5q31). GR is expressed in almost every cell in the body and regulates genes controlling the development, metabolism, and immune response. Because the receptor gene is expressed in several forms, it has many different (pleiotropic) effects in different parts of the body. The activated GR complex up-regulates the expression of anti-inflammatory proteins in the nucleus or represses the expression of pro-inflammatory proteins in the cytosol (by preventing the translocation of other transcription factors from the cytosol into the nucleus).

Overview

Product Name	Anti-Glucocorticoid Receptor/NR3C1 Antibody Picoband™
Reactive Species	Human
Description	Boster Bio Anti-Glucocorticoid Receptor/NR3C1 Antibody Picoband™ catalog # PB9232. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human.
Application	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P04150

Technical Details

Immunogen	E.coli-derived human NR3C1 recombinant protein (Position: M1-D373). Human NR3C1 shares 85% and 82% amino acid (aa) sequences identity with mouse and rat NR3C1, respectively.
Predicted Reactive Species	Bovine, Hamster, Horse, Monkey, Rabbit
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized

Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml, Human Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human, By Heat Immunocytochemistry/Immunofluorescence, 5ug/ml, Human Flow Cytometry, 1-3ug/1x10⁶ cells, Human

Anti-Glucocorticoid Receptor/NR3C1 Antibody Picoband™ (PB9232) Images

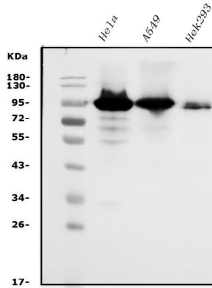


Figure 1. Western blot analysis of NR3C1 using anti-NR3C1 antibody (PB9232).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human HeLa whole cell lysates,

Lane 2: human A549 whole cell lysates,

Lane 3: human HEK293 whole cell lysates.

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes.

Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-NR3C1 antigen affinity purified polyclonal antibody (Catalog # PB9232) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for NR3C1 at approximately 95 kDa. The expected band size for NR3C1 is at 86 kDa.

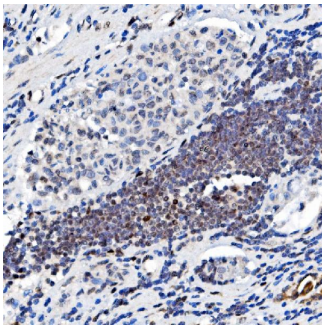


Figure 2. IHC analysis of NR3C1 using anti-NR3C1 antibody (PB9232).

NR3C1 was detected in paraffin-embedded section of human gastric cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-NR3C1 Antibody (PB9232) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

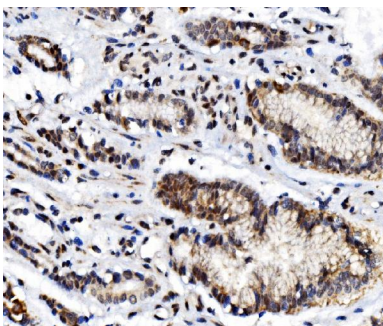
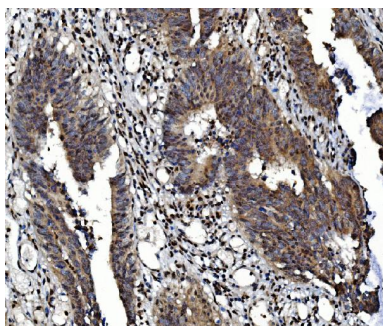


Figure 3. IHC analysis of NR3C1 using anti-NR3C1 antibody (PB9232).

NR3C1 was detected in paraffin-embedded section of human gastric cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-NR3C1 Antibody (PB9232) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

Figure 4. IHC analysis of NR3C1 using anti-NR3C1 antibody (PB9232).

NR3C1 was detected in paraffin-embedded section of human



rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-NR3C1 Antibody (PB9232) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

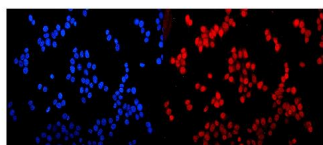


Figure 5. IF analysis of NR3C1 using anti- NR3C1 antibody (PB9232).

NR3C1 was detected in immunocytochemical section of MCF-7 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti- NR3C1 Antibody (PB9232) overnight at 4°C. DyLight®594 Conjugated Goat Anti-Rabbit IgG (BA1142) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

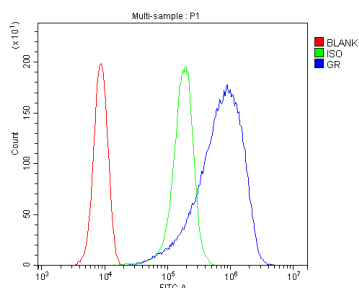


Figure 6. Flow Cytometry analysis of SiHa cells using anti-NR3C1 antibody (PB9232).

Overlay histogram showing SiHa cells stained with PB9232 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-NR3C1 Antibody (PB9232, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

2 Publications Citing This Product

1. PubMed ID: -, Lifan Ma, Xiaozhen Tan, Jiaqi Li, Yang Long, Zhen Xiao, Ji De, Yan Ren, Haoming Tian, T.a.o. Chen, A Novel Glucocorticoid Receptor Mutation in Primary Generalized Glucocorticoid Resistance Disease, Endocrine Practice, Volume 26, Issue 6, 2020, 651-659, ISSN 1530-891X,
2. PubMed ID: 28754919, Sharma S, Maras JS, Das S, Hussain S, Mishra AK, Shasthry SM, Sharma CB, Weiss E, Elrief L, Rautou PE, Gilgenkrantz H, Lotersztajn S, Paradis V, de la Grange P, Junot C0, Moreau R, Sarin SK. Sci Rep. 2017 Jul 28;7(1):6816. doi: 10.1038/s41598-017...

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