SANTA CRUZ BIOTECHNOLOGY, INC.

GR (H-300): sc-8992

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The glucocorticoid receptor (GR) is a ubiquitously expressed transcription factor that mediates the effects of glucocorticoids. The most abundant isoform is GR α. GR induces or represses the expression of genes in response to glucocorticoids, mediating such processes as apoptosis and cell growth and differentiation. A significant class of genes suppressed by GR is controlled by the transcription factor AP-1. GR has also been shown to be the limiting factor in the induction of gene expression by glucocorticoids. It has been revealed that GR forms a complex with HSP 90 rendering the non ligand bound receptor transcriptionally inactive. More importantly, mutant GRs lacking the signaling domain remain constitutively active.

CHROMSOMAL LOCATION

Genetic locus: NR3C1 (human) mapping to 5q31.3; Nr3c1 (mouse) mapping to 18 B3.

SOURCE

GR (H-300) is a rabbit polyclonal antibody raised against amino acids 121-420 of GR of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-8992 X, 200 µg/0.1 ml.

APPLICATIONS

GR (H-300) is recommended for detection of GR α and GR β of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

GR (H-300) is also recommended for detection of GR α and GR β in additional species, including equine, canine and bovine.

Suitable for use as control antibody for GR siRNA (h): sc-35505, GR siRNA (m): sc-35506, GR shRNA Plasmid (h): sc-35505-SH, GR shRNA Plasmid (m): sc-35506-SH, GR shRNA (h) Lentiviral Particles: sc-35505-V and GR shRNA (m) Lentiviral Particles: sc-35506-V.

GR (H-300) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of GR α: 95 kDa.

Molecular Weight of GR β: 90 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, NIH/3T3 nuclear extract: sc-2138 or KNRK nuclear extract: sc-2141.

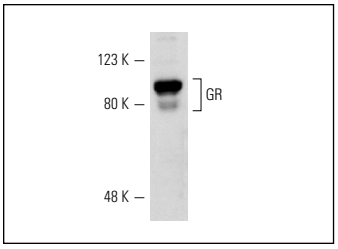
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

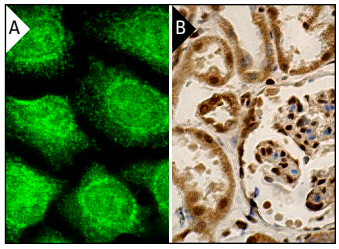
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



GR (H-300): sc-8992. Western blot analysis of GR expression in HeLa nuclear extract.



GR (H-300): sc-8992. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing nuclear staining of glomerular cells and nuclear and cytoplasmic staining of cells in tubules (**B**).

SELECT PRODUCT CITATIONS

1. Meyer, T., et al. 2002. Constitutive and IFN-γ-induced nuclear import of Stat1 proceed through independent pathways. EMBO J. 21: 344-354.
2. Aoyagi, S., et al. 2011. Differential glucocorticoid receptor-mediated transcription mechanisms. J. Biol. Chem. 286: 4610-4619.
3. Geng, C.D., et al. 2011. A new, lineage specific, autoup-regulation mechanism for human glucocorticoid receptor gene expression in 697 pre-B-acute lymphoblastic leukemia cells. Mol. Endocrinol. 25: 44-57.
4. Montero-Pedrazuela, A., et al. 2011. Adult-onset hypothyroidism enhances fear memory and upregulates mineralocorticoid and glucocorticoid receptors in the amygdala. PLoS ONE 6: e26582.
5. Guo, W., et al. 2012. Glucocorticoid receptor mediates the effect of progesterone on uterine natural killer cells. Am. J. Reprod. Immunol. 67: 463-473.
6. Billing, A.M., et al. 2012. Proteomic profiling of rapid non-genomic and concomitant genomic effects of acute restraint stress on rat thymocytes. J. Proteomics 75: 2064-2079.
7. Pawluski, J.L., et al. 2012. Developmental fluoxetine exposure differentially alters central and peripheral measures of the HPA system in adolescent male and female offspring. Neuroscience 220: 131-141.