

GR (P-20): sc-1002

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, 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.

CHROMOSOMAL LOCATION

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

SOURCE

GR (P-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of GR α of human origin.

PRODUCT

Each vial contains 200 μ g 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-1002 X, 200 μ g/0.1 ml.

GR (P-20) is available conjugated to agarose (sc-1002 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP.

Blocking peptide available for competition studies, sc-1002 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GR (P-20) is recommended for detection of GR α of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 (P-20) is also recommended for detection of GR α in additional species, including equine, canine, bovine, porcine and avian.

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 (P-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

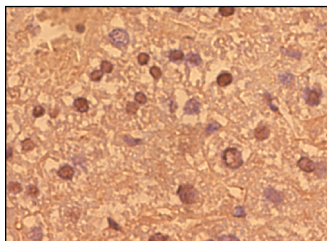
Molecular Weight of GR α : 95 kDa.

Molecular Weight of GR β : 90 kDa.

STORAGE

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

DATA



GR (P-20): sc-1002. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human bone tissue showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Doucas, V., et al. 2000. Cytoplasmic catalytic subunit of protein kinase A mediates cross-repression by NF κ B and the glucocorticoid receptor. *Proc. Natl. Acad. Sci. USA* 97: 11893-11898.
2. Hong, W., et al. 2009. ATP hydrolysis is essential for Bag-1M-mediated inhibition of the DNA binding by the glucocorticoid receptor. *Biochem. Biophys. Res. Commun.* 390: 77-81.
3. Diefenbacher, M.E., et al. 2010. The nuclear isoform of the LIM domain protein Trip6 integrates activating and repressing signals at the promoter-bound glucocorticoid receptor. *Mol. Cell. Endocrinol.* 320: 58-66.
4. Guo, L., et al. 2010. STAT5-glucocorticoid receptor interaction and MTF-1 regulate the expression of ZnT2 (Slc30a2) in pancreatic acinar cells. *Proc. Natl. Acad. Sci. USA* 107: 2818-2823.
5. Presman, D.M., et al. 2010. Insights on glucocorticoid receptor activity modulation through the binding of rigid steroids. *PLoS ONE* 5: e13279.
6. Dunn, E., et al. 2010. Prenatal synthetic glucocorticoid exposure alters hypothalamic-pituitary-adrenal regulation and pregnancy outcomes in mature female guinea pigs. *J. Physiol.* 588: 887-899.
7. Meng, Q.Y., et al. 2011. Stress and glucocorticoids regulated corticotropin releasing factor in rat prefrontal cortex. *Mol. Cell. Endocrinol.* 342: 54-63.

RESEARCH USE

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

MONOS
Satisfaction
Guaranteed

Try **GR (G-5): sc-393232** or **GR (A-4): sc-376425**, our highly recommended monoclonal alternatives to GR (P-20). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **GR (G-5): sc-393232**.