

# GR (M-20): sc-1004

## BACKGROUND

The glucocorticoid receptor (GR) is an ubiquitously expressed transcription factor that mediates the effects of glucocorticoids. The most abundant isoform is GR  $\alpha$ . 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

GR (M-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of GR  $\alpha$  of mouse origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-1004 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as agarose conjugate for immunoprecipitation, sc-1004 AC, 500  $\mu$ g/0.25 ml agarose in 1 ml.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-1004 X, 200  $\mu$ g/0.1 ml.

## APPLICATIONS

GR (M-20) is recommended for detection of GR  $\alpha$  and GR  $\beta$  of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

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

Molecular Weight of GR  $\alpha$ : 95 kDa.

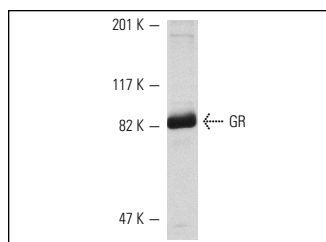
Molecular Weight of GR  $\beta$ : 90 kDa.

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

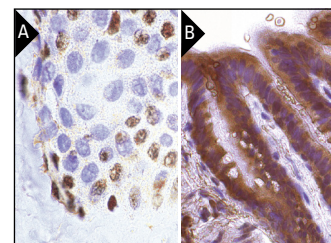
## STORAGE

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

## DATA



GR (M-20): sc-1004. Western blot analysis of GR expression in NIH/3T3 nuclear extract.



GR (M-20): sc-1004. Immunoperoxidase staining of formalin-fixed, paraffin-embedded normal human skin showing nuclear localization (A) and human lung tissue showing nuclear and cytoplasmic staining of respiratory epithelial cells (B).

## SELECT PRODUCT CITATIONS

- Brandt, P.C., et al. 2000. Elevated glucocorticoid receptor transactivation and down-regulation of Integrin  $\alpha$ 1 are associated with loss of plasma membrane  $\text{Ca}^{2+}$ -ATPase isoform 1. *J. Biol. Chem.* 275: 24534-24539.
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- Lin, D.Y., et al. 2003. Promyelocytic leukemia protein (PML) functions as a glucocorticoid receptor co-activator by sequestering Daxx to the PML oncogenic domains (PODs) to enhance its transactivation potential. *J. Biol. Chem.* 278: 15958-15965.
- Ko, M. 2004. T cell receptor signaling inhibits glucocorticoid-induced apoptosis by repressing the SRG3 expression via Ras activation. *J. Biol. Chem.* 279: 21903-21915.
- Burkhart, B.A., et al. 2005. Chromatin-dependent E1A activity modulates NF $\kappa$ B RelA-mediated repression of glucocorticoid receptor-dependent transcription. *J. Biol. Chem.* 280: 6349-6358.
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- Mikkonen, L., et al. 2010. Androgen receptor and androgen-dependent gene expression in lung. *Mol. Cell. Endocrinol.* 317: 14-24.

## RESEARCH USE

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