SANTA CRUZ BIOTECHNOLOGY, INC.

GR (M-20): sc-1004



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

PRODUCT

Each vial contains 100 μ g lgG 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-1004 X, 100 μ g/0.1 ml.

GR (M-20) is available conjugated to agarose (sc-1004 AC), 500 $\mu g/0.25$ ml agarose in 1 ml, for IP.

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

APPLICATIONS

GR (M-20) is recommended for detection of GR α and GR β 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 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).

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 α/β : 95/90 kDa.

Positive Controls: 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.

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 of glucocorticoid receptor (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human lung tissue showing nuclear and cytoplasmic staining of respiratory epithelial cells (B).

SELECT PRODUCT CITATIONS

- 1. Brandt, P.C., et al. 2000. Elevated glucocorticoid receptor transactivation and down-regulation of Integrin α 1 are associated with loss of plasma membrane Ca²⁺-ATPase isoform 1. J. Biol. Chem. 275: 24534-24539.
- Yuan, H., et al. 2012. The chemopreventive effect of mifepristone on mammary tumorigenesis is associated with an anti-invasive and anti-inflammatory gene signature. Cancer Prev. Res. 5: 754-764.
- 3. Blondeau, B., et al. 2012. Novel transgenic mice for inducible gene overexpression in pancreatic cells define glucocorticoid receptor-mediated regulations of β cells. PLoS ONE 7: e30210.
- Simoes, D.C., et al. 2012. Glucocorticoid and estrogen receptors are reduced in mitochondria of lung epithelial cells in asthma. PLoS ONE 7: e39183.
- Cirillo, N., et al. 2012. Characterization of a novel oral glucocorticoid system and its possible role in disease. J. Dent. Res. 91: 97-103.
- Islam, M.N., et al. 2012. Characterization of the "sporadically lurking HAP1-immunoreactive (SLH) cells" in the hippocampus, with special reference to the expression of steroid receptors, GABA, and progenitor cell markers. Neuroscience 210: 67-81.

RESEARCH USE

MONOS

Satisfation

Guaranteed

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

Try GR (G-5): sc-393232 or GR (A-4): sc-376425,

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