SANTA CRUZ BIOTECHNOLOGY, INC.

GR (8E9): sc-56852

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

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

REFERENCES

1. Hollenberg, S.M., et al. 1985. Primary structure and expression of a functional human glucocorticoid receptor cDNA. Nature 318: 635-641.
2. Strähle, U., et al. 1992. At least three promoters direct expression of the mouse glucocorticoid receptor gene. Proc. Natl. Acad. Sci. USA 89: 6731-6735.
3. Gorovits, R., et al. 1994. Developmental changes in the expression and compartmentalization of the glucocorticoid receptor in embryonic retina. Proc. Natl. Acad. Sci. USA 91: 4786-4790.
4. Heck, S., et al. 1994. A distinct modulating domain in glucocorticoid recepter monomers in the repression of activity of the transcription factor AP-1. EMBO J. 13: 4087-4095.
5. Hutchison, K.A., et al. 1994. All of the factors required for assembly of the glucocorticoid receptor into a functional heterocomplex with heat shock protein 90 are preassociated in a self-sufficient protein folding structure, a "foldosome." J. Biol. Chem. 269: 27894-27899.
6. Bohen, S.P., et al. 1995. Hold 'em and fold 'em: chaperones and signal transduction. Science 268: 1303-1305.
7. Rogatsky, I., et al. 2003. Target-specific utilization of transcriptional regulatory surfaces by the glucocorticoid receptor. Proc. Natl. Acad. Sci. USA 100: 13845-13850.

CHROMOSOMAL LOCATION

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

SOURCE

GR (8E9) is a mouse monoclonal antibody raised against amino acids 150-176 of GR linked thyroglobulin of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

GR (8E9) is recommended for detection of GR of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

Suitable for use as control antibody for GR siRNA (h): sc-35505.

Molecular Weight of GRα: 95 kDa.

Molecular Weight of GRβ: 90 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, normal human skin or HeLa nuclear extract: sc-2120.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.