# SANTA CRUZ BIOTECHNOLOGY, INC.

# GREB1 (N-13): sc-138794



The Power to Question

## BACKGROUND

GREB1 (gene regulated in breast cancer 1 protein), is a 1,949 amino acid single-pass membrane protein that is expressed in proliferating prostatic tissue and prostate cancer and is strongly upregulated by 17 $\beta$  Estradiol. It is suggested that GREB1 may have an important role in hormone-responsive tissues and cancer. Regulated by androgens, GREB1 is critically involved in the estrogen induced proliferation in breast cancer cells. GREB1 is a potential clinical marker for response to endocrine therapy and as a potential therapeutic target. Four isoforms exist due to alternative splicing events.

## REFERENCES

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- 3. Rae, J.M., et al. 2005. GREB1 is a critical regulator of hormone dependent breast cancer growth. Breast Cancer Res. Treat. 92: 141-149.
- Wilson, C.L., et al. 2006. Effects of oestrogen on gene expression in epithelium and stroma of normal human breast tissue. Endocr. Relat. Cancer 13: 617-628.
- Jensen, K.A., et al. 2006. A truncated Ah receptor blocks the hypoxia and estrogen receptor signaling pathways: a viable approach for breast cancer treatment. Mol. Pharm. 3: 695-703.
- 6. Rae, J.M., et al. 2006. GREB1 is a novel androgen-regulated gene required for prostate cancer growth. Prostate 66: 886-894.
- 7. Deschênes, J., et al. 2007. Regulation of GREB1 transcription by estrogen receptor  $\alpha$  through a multipartite enhancer spread over 20 kb of upstream flanking sequences. J. Biol. Chem. 282: 17335-17339.
- Sun, J., et al. 2007. Long-range activation of GREB1 by estrogen receptor via three distal consensus estrogen-responsive elements in breast cancer cells. Mol. Endocrinol. 21: 2651-2662.
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#### CHROMOSOMAL LOCATION

Genetic locus: GREB1 (human) mapping to 2p25.1; Greb1 (mouse) mapping to 12 A1.1.

#### SOURCE

GREB1 (N-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of GREB1 of human origin.

# PRODUCT

Each vial contains 100  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138794 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### APPLICATIONS

GREB1 (N-13) is recommended for detection of GREB1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

GREB1 (N-13) is also recommended for detection of GREB1 in additional species, including equine.

Suitable for use as control antibody for GREB1 siRNA (h): sc-94993, GREB1 siRNA (m): sc-145759, GREB1 shRNA Plasmid (h): sc-94993-SH, GREB1 shRNA Plasmid (m): sc-145759-SH, GREB1 shRNA (h) Lentiviral Particles: sc-94993-V and GREB1 shRNA (m) Lentiviral Particles: sc-145759-V.

Molecular Weight of GREB1: 216 kDa.

Positive Controls: DU 145 cell lysate: sc-2268.

## **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

#### DATA



GREB1 (N-13): sc-138794. Western blot analysis of GREB1 expression in DU 145 whole cell lysate.

#### **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.

### PROTOCOLS

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