

## BRE (C-16): sc-48847

### BACKGROUND

Brain and reproductive organ-expressed protein (BRE) is a 415 amino acid, 44 kDa protein which binds to the intracellular juxtamembrane domain of the death receptor, tumor necrosis factor receptor 1 (TNF-R1). BRE also binds to the death receptor, FAS. BRE downregulates TNF $\alpha$ -induced activation of NF $\kappa$ B and may play a role in homeostasis or cellular differentiation in cells of epithelial, neural and germ line origins. It inhibits components of the death-inducing signaling complexes that are necessary for activation of the mitochondria, thereby mediating apoptosis. BRE is strongly expressed in the adrenal cortex, medulla, testis and pancreas, and is weakly expressed in the thymus, thyroid, stomach and small intestine. The BRE gene is responsive to DNA-damaging agents in fibroblasts, LPS in peripheral blood mononuclear cells (PBMC), and by retinoic acid in brain gloima.

### REFERENCES

- Li, L., et al. 1995. Identification of a brain and reproductive organs-specific gene responsive to DNA damage and retinoic acid. *Biochem. Biophys. Res. Commun.* 206: 764-774.
- Gu, C., et al. 1998. BRE: a modulator of TNF $\alpha$  action. *FASEB J.* 12: 1101-1108.
- Li, Q., et al. 2004. A death receptor-associated anti-apoptotic protein, BRE, inhibits mitochondrial apoptotic pathway. *J. Biol. Chem.* 279: 52106-52116.
- Chan, B.C., et al. 2005. BRE enhances *in vivo* growth of tumor cells. *Biochem. Biophys. Res. Commun.* 326: 268-273.
- Miao, J., et al. 2005. Blocking BRE expression in Leydig cells inhibits steroidogenesis by downregulating  $\beta$ 3-hydroxysteroid dehydrogenase. *J. Endocrinol.* 185: 507-517.

### CHROMOSOMAL LOCATION

Genetic locus: BRE (human) mapping to 2p23.2; Bre (mouse) mapping to 5 B1.

### SOURCE

BRE (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of BRE of human 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-48847 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-48847 X, 200  $\mu$ g/0.1 ml.

### STORAGE

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

### APPLICATIONS

BRE (C-16) is recommended for detection of BRE of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

BRE (C-16) is also recommended for detection of BRE in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for BRE siRNA (h): sc-60288, BRE siRNA (m): sc-60289, BRE shRNA Plasmid (h): sc-60288-SH, BRE shRNA Plasmid (m): sc-60289-SH, BRE shRNA (h) Lentiviral Particles: sc-60288-V and BRE shRNA (m) Lentiviral Particles: sc-60289-V.

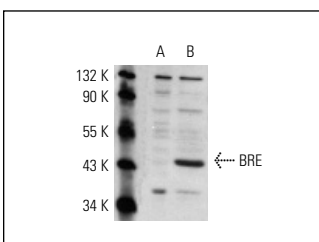
BRE (C-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of BRE: 44 kDa.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

### DATA



BRE (C-16): sc-48847. Western blot analysis of BRE expression in non-transfected: sc-110760 (A) and human BRE transfected: sc-110575 (B) 293 whole cell lysates.

### SELECT PRODUCT CITATIONS

- Wang, B., et al. 2009. NBA1, a new player in the BRCA1 A complex, is required for DNA damage resistance and checkpoint control. *Genes Dev.* 23: 729-739.

### RESEARCH USE

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