

BRE (A-4): sc-390368

BACKGROUND

Brain and reproductive organ-expressed protein (BRE) is a 415 amino acid 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 α -induced activation of NF κ 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 glioma.

REFERENCES

1. 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.
2. Gu, C., et al. 1998. BRE: a modulator of TNF- α action. *FASEB J.* 12: 1101-1108.
3. Chan, B.C., et al. 2004. BRE enhances *in vivo* growth of tumor cells. *Biochem. Biophys. Res. Commun.* 326: 268-273.
4. Li, Q., et al. 2004. A death receptor-associated anti-apoptotic protein, BRE, inhibits mitochondrial apoptotic pathway. *J. Biol. Chem.* 279: 52106-52116.
5. Miao, J., et al. 2005. Blocking BRE expression in Leydig cells inhibits steroidogenesis by down 3 β -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 (A-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 301-335 near the C-terminus of BRE of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-390368 X, 200 μ g/0.1 ml.

Blocking peptide available for competition studies, sc-390368 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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 (A-4) is recommended for detection of BRE of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

BRE (A-4) is also recommended for detection of BRE in additional species, including equine, canine and bovine.

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 (A-4) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

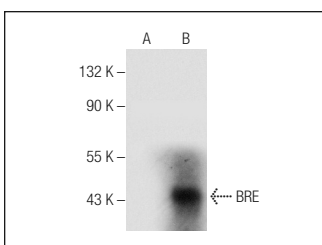
Molecular Weight of BRE: 44 kDa.

Positive Controls: BRE (h): 293 Lysate: sc-110575.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



BRE (A-4): sc-390368. Western blot analysis of BRE expression in non-transfected: sc-110760 (A) and human BRE transfected: sc-110575 (B) 293 whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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