BACKGROUND

BSX (brain-specific homeobox), also known as BSX1, is a 233 amino acid highly conserved protein that localizes to the nucleus and is a member of the distal-less homeobox family. BSX is a DNA binding protein that functions as a transcriptional activator and is essential for normal postnatal growth and nursing. BSX is a master regulator for the hypothalamic expression of key orexigenic neuropeptide Y (NPY) and agouti-related peptide (AGRP) function. Expressed in the dorsomedial and arcuate nucleus (ARC) of the hypothalamus, BSX is regulated by afferent signals in response to peripheral energy balance. Containing a homeobox DNA-binding domain, BSX may be involved in the pathogenesis of leptin resistance. The gene encoding BSX maps to human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: BSX (human) mapping to 11q24.1; Bsx (mouse) mapping to 9 A5.1.

SOURCE

BSX (H-53) is a rabbit antibody raised against amino acids 1-53 mapping at the N-terminus of BSX of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

BSX (H-53) is recommended for detection of BSX of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg 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).

BSX (H-53) is also recommended for detection of BSX in additional species, including equine, bovine, porcine and canine.

Suitable for use as control antibody for BSX siRNA (h): sc-96305, BSX siRNA (m): sc-141767, BSX shRNA Plasmid (h): sc-96305-SH, BSX shRNA Plasmid (m): sc-141767-SH, BSX shRNA (h) Lentiviral Particles: sc-96305-V and BSX shRNA (m) Lentiviral Particles: sc-141767-V.

Molecular Weight of BSX: 26 kDa.

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™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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. 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™ Mounting Medium: sc-24941.

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.