

BRIDGE-1 (R-17): sc-10671

BACKGROUND

BRIDGE-1, a protein homologous to a previously cloned proteasome subunit, p27, is important in regulating Insulin and other islet genes in the pancreas. BRIDGE-1 is highly expressed in pancreatic β cells and is predominantly located in the nucleus, although lower levels are expressed in the cytoplasm. BRIDGE-1 contains a conserved PDZ-like domain that mediates protein-protein interactions in a variety of intracellular signaling processes, including the transactivational activity of E2A. One mechanism of the activation of gene transcription in pancreatic β cells is the interaction of E2A with coactivating proteins such as CBP, p300 and BRIDGE-1. The interaction of E12 and E47, members of the E2A family of transcription factors, with the PDZ-domain of BRIDGE-1 suggest a novel mechanism for Insulin gene regulation.

REFERENCES

1. German, M.S., et al. 1994. The Insulin gene contains multiple transcriptional elements that respond to glucose. *Mol. Cell. Biol.* 14: 4067-4075.
2. Cordier-Bussat, M., et al. 1995. Homologous DNA sequences and cellular factors are implicated in the control of glucagon and Insulin gene expression. *Mol. Cell. Biol.* 15: 3904-3916.
3. Eckner, R., et al. 1996. Interaction and functional collaboration of p300/CBP and bHLH proteins in muscle and B-cell differentiation. *Genes Dev.* 10: 2478-2490.
4. Saras, J., et al. 1996. PDZ domains bind carboxy-terminal sequences of target proteins. *Trends Biochem. Sci.* 21: 455-458.
5. Qiu, Y., et al. 1998. p300 mediates transcriptional stimulation by the basic helix-loop-helix activators of the Insulin gene. *Mol. Cell. Biol.* 18: 2957-2964.

CHROMOSOMAL LOCATION

Genetic locus: PSMD9 (human) mapping to 12q24.31; Psm9 (mouse) mapping to 5 F.

SOURCE

BRIDGE-1 (R-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of BRIDGE-1 of rat origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-10671 P, (100 μ 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-10671 X, 200 μ g/0.1 ml.

STORAGE

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

APPLICATIONS

BRIDGE-1 (R-17) is recommended for detection of BRIDGE-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

BRIDGE-1 (R-17) is also recommended for detection of BRIDGE-1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for BRIDGE-1 siRNA (h): sc-105127, BRIDGE-1 siRNA (m): sc-141747, BRIDGE-1 shRNA Plasmid (h): sc-105127-SH, BRIDGE-1 shRNA Plasmid (m): sc-141747-SH, BRIDGE-1 shRNA (h) Lentiviral Particles: sc-105127-V and BRIDGE-1 shRNA (m) Lentiviral Particles: sc-141747-V.

BRIDGE-1 (R-17) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

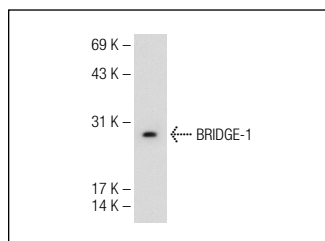
Molecular Weight of BRIDGE-1: 25 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214.

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™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 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™ Mounting Medium: sc-24941.

DATA



BRIDGE-1 (R-17): sc-10671. Western blot analysis of BRIDGE-1 expression in 293T whole cell lysate.

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.