

# BRIDGE-1 (D-4): sc-376363

## 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  $\beta$ -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  $\beta$ -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. Saras, J., et al. 1996. PDZ domains bind carboxy-terminal sequences of target proteins. *Trends Biochem. Sci.* 21: 455-458.
4. 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.
5. Watanabe, T.K., et al. 1998. cDNA cloning and characterization of a human proteasomal modulator subunit, p27 (PSMD9). *Genomics* 50: 241-250.
6. 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; Psmd9 (mouse) mapping to 5 F.

## SOURCE

BRIDGE-1 (D-4) is a mouse monoclonal antibody raised against amino acids 31-185 mapping within an internal region of BRIDGE-1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

BRIDGE-1 (D-4) is available conjugated to agarose (sc-376363 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376363 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376363 PE), fluorescein (sc-376363 FITC), Alexa Fluor® 488 (sc-376363 AF488), Alexa Fluor® 546 (sc-376363 AF546), Alexa Fluor® 594 (sc-376363 AF594) or Alexa Fluor® 647 (sc-376363 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376363 AF680) or Alexa Fluor® 790 (sc-376363 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

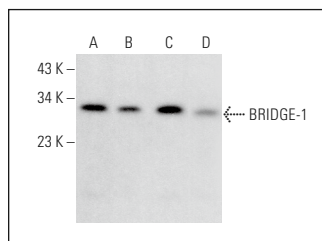
BRIDGE-1 (D-4) is recommended for detection of BRIDGE-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

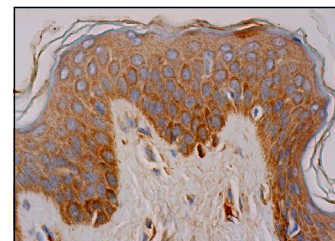
Molecular Weight of BRIDGE-1: 25 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Caco-2 cell lysate: sc-2262 or MCF7 whole cell lysate: sc-2206.

## DATA



BRIDGE-1 (D-4): sc-376363. Western blot analysis of BRIDGE-1 expression in K-562 (A), Caco-2 (B), MCF7 (C) and Sol8 (D) whole cell lysates.



BRIDGE-1 (D-4): sc-376363. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic staining of epidermal cells.

## SELECT PRODUCT CITATIONS

1. Huang, J.Y., et al. 2019. Visfatin mediates malignant behaviors through adipose-derived stem cells intermediary in breast cancer. *Cancers* 12: 29.

## 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](http://www.scbt.com) for detailed protocols and support products.