

# Bcl-9 (N-20): sc-79869

## BACKGROUND

Bcl-9 (B cell CLL/lymphoma 9 protein) is a nuclear protein encoded by the human gene Bcl9. Bcl-9 belongs to the Bcl9 family and is involved in the Wnt signaling pathway. The Wnt signaling pathway controls numerous cell fates during animal development. A malfunction in Wnt signaling activity can lead to cancer in many human tissues. A key effector of the canonical Wnt pathway is  $\beta$ -catenin (or *Drosophila armadillo*), a highly unstable phosphorylated protein that shuttles rapidly between nucleus and cytoplasm. A nuclear complex, consisting of Bcl-9/Bcl-9<sub>L</sub>,  $\beta$ -catenin and other proteins, activates transcription of several Wnt target genes, including FGF-20, WISP-1, Myc and Glucagon.

## REFERENCES

1. Fuerer, C., et al. 2006. Fusion of the Bcl-9 HD2 domain to E1A increases the cytopathic effect of an oncolytic adenovirus that targets colon cancer cells. *BMC Cancer* 6: 236.
2. Sampietro, J., et al. 2006. Crystal structure of a  $\beta$ -catenin/Bcl-9/Tcf4 complex. *Mol. Cell* 24: 293-300.
3. Hoffmans, R. and Basler, K. 2006. Bcl-9-2 binds Arm/ $\beta$ -catenin in a Tyr142-independent manner and requires Pygopus for its function in Wg/Wnt signaling. *Mech. Dev.* 124: 59-67.
4. Sakamoto, I., et al. 2007. Upregulation of a Bcl-9-related  $\beta$ -catenin-binding protein, B9L, in different stages of sporadic colorectal adenoma. *Cancer Sci.* 98: 83-87.
5. de la Roche, M. and Bienz, M. 2007. Wingless-independent association of Pygopus with dTCF target genes. *Curr. Biol.* 17: 556-561.
6. Nakamura, Y., et al. 2007. Crystal structure analysis of the PHD domain of the transcription co-activator Pygopus. *J. Mol. Biol.* 370: 80-92.
7. Katoh, M. and Katoh, M. 2007. Wnt signaling pathway and stem cell signaling network. *Clin. Cancer Res.* 13: 4042-4045.

## CHROMOSOMAL LOCATION

Genetic locus: BCL9 (human) mapping to 1q21.2; Bcl9 (mouse) mapping to 3 F2.1.

## SOURCE

Bcl-9 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Bcl-9 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, New Lan P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

Bcl-9 (N-20) is recommended for detection of Bcl-9 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).

Bcl-9 (N-20) is also recommended for detection of Bcl-9 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Bcl-9 siRNA (h): sc-72629, Bcl-9 siRNA (m): sc-72630, Bcl-9 shRNA Plasmid (h): sc-72629-SH, Bcl-9 shRNA Plasmid (m): sc-72630-SH, Bcl-9 shRNA (h) Lentiviral Particles: sc-72629-V and Bcl-9 shRNA (m) Lentiviral Particles: sc-72630-V.

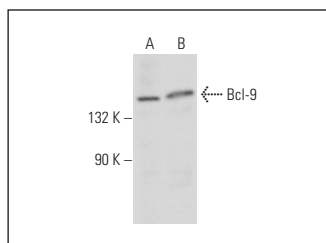
Molecular Weight of Bcl-9: 150 kDa.

Positive Controls: Ramos cell lysate: sc-2216 or K-562 whole cell lysate: sc-2203.

## 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



Bcl-9 (N-20): sc-79869. Western blot analysis of Bcl-9 expression in Ramos (A) and K-562 (B) whole cell lysates.

## RESEARCH USE

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

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Try **Bcl-9 (B-4): sc-398131** or **Bcl-9 (2071C3a): sc-81199**, our highly recommended monoclonal alternatives to Bcl-9 (N-20).