

# Bcl-9 (B-4): sc-398131

## 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-9L,  $\beta$ -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: 236-236.
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.

## CHROMOSOMAL LOCATION

Genetic locus: BCL9 (human) mapping to 1q21.2.

## SOURCE

Bcl-9 (B-4) is a mouse monoclonal antibody raised against amino acids 521-770 mapping within an internal region of Bcl-9 of human origin.

## PRODUCT

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

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## APPLICATIONS

Bcl-9 (B-4) is recommended for detection of Bcl-9 of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

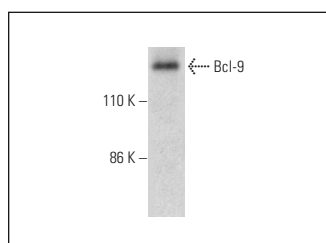
Molecular Weight of Bcl-9: 150 kDa.

Positive Controls: PC-3 nuclear extract: sc-2152 or HeLa nuclear extract: sc-2120.

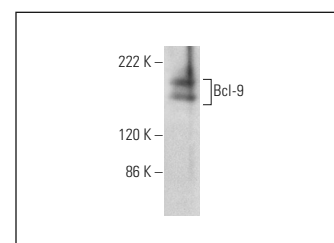
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ 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 $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  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



Bcl-9 (B-4): sc-398131. Western blot analysis of Bcl-9 expression in PC-3 nuclear extract.



Bcl-9 (B-4): sc-398131. Western blot analysis of Bcl-9 expression in HeLa nuclear extract.

## RESEARCH USE

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