

# Bcl-7b (NQ-B25): sc-134278

## BACKGROUND

Bcl-7b (B-cell CLL/lymphoma 7B) is a 202 amino acid protein that exists as multiple alternatively spliced isoforms and belongs to the Bcl-7 family. Expressed ubiquitously, Bcl-7b is thought to play a role in the development and progression of lung tumors, suggesting a possible role in cell cycle or apoptotic control. Haploinsufficiency of the Bcl-7b gene is associated with the pathogenesis of certain cardiovascular and musculo-skeletal abnormalities observed in Williams-Beuren syndrome (WBS). Additionally, Bcl-7b may cause an allergic reaction in humans, specifically by binding to IgE in atopic dermatitis patients and functioning as an autoantigen. The gene encoding Bcl-7b maps to human chromosome 7, which houses over 1,000 genes and comprises nearly 5% of the human genome. Defects in some of the genes localized to chromosome 7 have been linked to Osteogenesis imperfecta, Williams-Beuren syndrome, Pendred syndrome, Lissencephaly, Citrullinemia and Shwachman-Diamond syndrome.

## REFERENCES

- Zani, V.J., et al. 1996. Molecular cloning of complex chromosomal translocation t(8;14)(q24.1;q32.3;q24.1) in a Burkitt lymphoma cell line defines a new gene (BCL7A) with homology to caldesmon. *Blood* 87: 3124-3134.
- Natter, S., et al. 1998. Isolation of cDNA clones coding for IgE autoantigens with serum IgE from atopic dermatitis patients. *FASEB J.* 12: 1559-1569.
- Jadayel, D.M., et al. 1998. The BCL7 gene family: deletion of BCL7B in Williams syndrome. *Gene* 224: 35-44.
- Meng, X., et al. 1998. Complete physical map of the common deletion region in Williams syndrome and identification and characterization of three novel genes. *Hum. Genet.* 103: 590-599.
- Liang, H., et al. 1998. Molecular anatomy of chromosome 7q deletions in myeloid neoplasms: evidence for multiple critical loci. *Proc. Natl. Acad. Sci. USA* 95: 3781-3785.
- Online Mendelian Inheritance in Man, OMIM™. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 605846. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Eckert, M.A., et al. 2006. The neurobiology of Williams syndrome: cascading influences of visual system impairment? *Cell. Mol. Life Sci.* 63: 1867-1875.
- Osborne, L.R., et al. 2006. Williams-Beuren syndrome diagnosis using fluorescence *in situ* hybridization. *Methods Mol. Med.* 126: 113-128.

## CHROMOSOMAL LOCATION

Genetic locus: BCL7B (human) mapping to 7q11.23.

## SOURCE

Bcl-7b (NQ-B25) is a mouse monoclonal antibody raised against recombinant Bcl-7b protein of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Bcl-7b (NQ-B25) is recommended for detection of Bcl-7b of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Bcl-7b siRNA (h): sc-89728, Bcl-7b shRNA Plasmid (h): sc-89728-SH and Bcl-7b shRNA (h) Lentiviral Particles: sc-89728-V.

Molecular Weight (predicted) of Bcl-7b: 22 kDa.

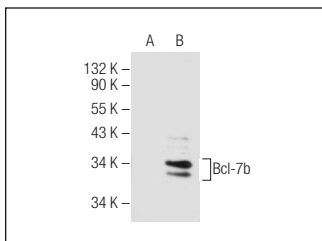
Molecular Weight (observed) of Bcl-7b: 32 kDa.

Positive Controls: Bcl-7b (h3): 293 Lysate: sc-111318 or human Bcl-7b transfected 293T whole cell lysate.

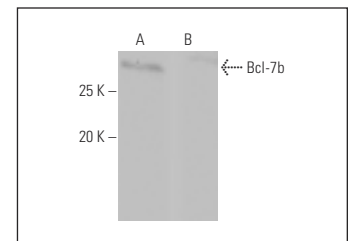
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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).

## DATA



Bcl-7b (NQ-B25): sc-134278. Western blot analysis of Bcl-7b expression in non-transfected: sc-110760 (A) and human Bcl-7b transfected: sc-111318 (B) 293 whole cell lysates.



Bcl-7b (NQ-B25): sc-134278. Western blot analysis of Bcl-7b expression in human Bcl-7b transfected (A) and non-transfected (B) 293T whole cell lysates.

## 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.