SANTA CRUZ BIOTECHNOLOGY, INC.

Bcl-3 (150-3.5): sc-32741

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

On the basis of both functional and structural considerations, members of the IκB family of proteins can be divided into three groups. The first of these groups, IκB-α, includes the avian protein pp40 and the mammalian Mad 3, both of which inhibit binding of p50-p65 NFκB complex or Rel protein to their cognate binding sites but do not inhibit the binding of p50 homodimer to κB sites, suggesting that the IκB-α family binds to the p65 subunit of p50-p65 heterocomplex through ankyrin repeats. The second member of the IκB family is represented by a protein designated IκB-β. The third group of IκB proteins is represented by IκB-γ, a protein identical in sequence with the C-terminal domain of the p110 pre-cursor of NFκB p50 and expressed predominantly in lymphoid cells. The proto-oncogene Bcl-3, believed to be involved in certain human B cell leukemias, encodes a protein that functions as an IκB-like molecule for native NFκB but is specific for the p50 subunit.

REFERENCES

1. Ghosh, S., et al. 1990. Activation *in vitro* of NFκB by phosphorylation of its inhibitor IκB. Nature 344: 678-682.
2. Davis, N., et al. 1991. Rel-associated pp40: an inhibitor of the Rel family of transcription factors. Science 252: 1268-1271.
3. Kerr, L.D., et al. 1991. The Rel-associated pp40 protein prevents DNA binding of Rel and NFκB: relationship with IκB-β and regulation by phosphorylation. Genes Dev. 5: 1464-1476.
4. Haskill, S., et al. 1991. Characterization of an immediate-early gene induced in adherent monocytes that encodes IκB like activity. Cell 65: 1281-1289.
5. Schmid, R.M., et al. 1991. Cloning of an NFκB subunit which stimulates HIV transcription in synergy with p65. Nature 352: 733-736.
6. Inoue, J., et al. 1992. IκB-γ, a 70 kd protein identical to the C-terminal half of p110 NFκB; a new member of the IκB family. Cell 68: 1109-1120.

CHROMOSOMAL LOCATION

Genetic locus: BCL3 (human) mapping to 19q13.32; Bcl3 (mouse) mapping to 7 A3.

SOURCE

Bcl-3 (150-3.5) is an Armenian hamster monoclonal antibody raised against full-length Bcl-3 of mouse origin.

PRODUCT

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

Bcl-3 (150-3.5) is available conjugated to agarose (sc-32741 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-32741 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-32741 PE), fluorescein (sc-32741 FITC), Alexa Fluor® 488 (sc-32741 AF488), Alexa Fluor® 546 (sc-32741 AF546), Alexa Fluor® 594 (sc-32741 AF594) or Alexa Fluor® 647 (sc-32741 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-32741 AF680) or Alexa Fluor® 790 (sc-32741 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Bcl-3 (150-3.5) is recommended for detection of Bcl-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other Bcl isoforms.

Suitable for use as control antibody for Bcl-3 siRNA (h): sc-29789, Bcl-3 siRNA (m): sc-29790, Bcl-3 shRNA Plasmid (h): sc-29789-SH, Bcl-3 shRNA Plasmid (m): sc-29790-SH, Bcl-3 shRNA (h) Lentiviral Particles: sc-29789-V and Bcl-3 shRNA (m) Lentiviral Particles: sc-29790-V.

Molecular Weight of Bcl-3: 60 kDa.

Positive Controls: WEHI-3 cell lysate: sc-3815, Jurkat nuclear extract: sc-2132 or NAMALWA cell lysate: sc-2234.

SELECT PRODUCT CITATIONS

1. Dai, R., et al. 2007. Despite inhibition of nuclear localization of NFκB p65, c-Rel, and RelB, 17-β estradiol up-regulates NFκB signaling in mouse splenocytes: the potential role of Bcl-3. J. Immunol. 179: 1776-1783.
2. Karpuzoglu, E., et al. 2011. Serine protease inhibitor, 4-(2-aminoethyl)-benzene sulfonyl fluoride, impairs IL-12-induced activation of pSTAT4β, NFκB, and select pro-inflammatory mediators from estrogen-treated mice. Immunobiology 216: 1264-1273.
3. Chen, C.Y., et al. 2015. Bcl3 bridges LIF-STAT3 to Oct4 signaling in the maintenance of naïve pluripotency. Stem Cells 33: 3468-3480.
4. Wang, J., et al. 2020. MicroRNA-627-5p inhibits the proliferation of hepatocellular carcinoma cells by targeting BCL3 transcription coactivator. Clin. Exp. Pharmacol. Physiol. 47: 485-494.
5. Welz, B., et al. 2021. Activation of GSK3 prevents termination of TNF-induced signaling. J. Inflamm. Res. 14: 1717-1730.
6. Fang, S., et al. 2023. Early pregnancy regulates expression of IκB family in ovine spleen and lymph nodes. Int. J. Mol. Sci. 24: 5156.
7. Cai, C., et al. 2023. Expression of IκB family in the ovine liver during early pregnancy. Animals 13: 1057.

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 for detailed protocols and support products.