

# NBK (H-1): sc-365625

## BACKGROUND

The Bcl-2 gene was isolated at the chromosomal breakpoint of t-bearing follicular B cell lymphomas. Bcl-2 blocks cell death following a variety of stimuli and confers a death-sparing effect to certain hematopoietic cell lines following growth factor withdrawal. Bcl-2 appears to function in several subcellular locations yet lacks any known motifs that would provide insight into its mechanism of action. A protein designated Bax p21 (for Bcl-associated X protein) has extensive amino acid homology with Bcl-2 and both hetero-dimerizes and homodimerizes with Bcl-2. Overexpression of Bax accelerates apoptotic death. Natural born killer (NBK), also known as Bik, is a protein that is functionally related to Bax, although the two proteins share very little sequence homology. NBK does not contain the conserved Bcl-2 homology domains (BH domains) characteristic of the Bcl-2 family. It does however, share nine amino acids with Bax in a region designated BH3, which may be the critical determinant for the NBK death-promoting activities.

## CHROMOSOMAL LOCATION

Genetic locus: BIK (human) mapping to 22q13.2.

## SOURCE

NBK (H-1) is a mouse monoclonal antibody raised against amino acids 1-160 representing full length NBK of human origin.

## PRODUCT

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

NBK (H-1) is available conjugated to agarose (sc-365625 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365625 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365625 PE), fluorescein (sc-365625 FITC), Alexa Fluor® 488 (sc-365625 AF488), Alexa Fluor® 546 (sc-365625 AF546), Alexa Fluor® 594 (sc-365625 AF594) or Alexa Fluor® 647 (sc-365625 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365625 AF680) or Alexa Fluor® 790 (sc-365625 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

NBK (H-1) is recommended for detection of NBK of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 NBK siRNA (h): sc-36016, NBK shRNA Plasmid (h): sc-36016-SH and NBK shRNA (h) Lentiviral Particles: sc-36016-V.

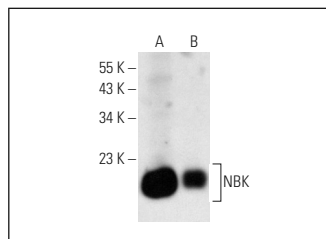
Molecular Weight of NBK: 20 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, Ramos cell lysate: sc-2216 or BJAB whole cell lysate: sc-2207.

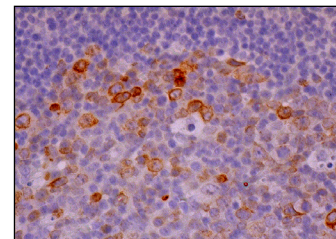
## STORAGE

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

## DATA



NBK (H-1): sc-365625. Western blot analysis of NBK expression in Ramos (A) and HL-60 (B) whole cell lysates.



NBK (H-1): sc-365625. Immunoperoxidase staining of formalin fixed, paraffin-embedded human tonsil tissue showing cytoplasmic and membrane staining of cells in germinal centers.

## SELECT PRODUCT CITATIONS

- Patel, V., et al. 2014. Impact of bone marrow stromal cells on Bcl-2 family members in chronic lymphocytic leukemia. *Leuk. Lymphoma* 55: 899-910.
- Choi, Y.C., et al. 2015. MicroRNA library screening identifies growth-suppressive microRNAs that regulate genes involved in cell cycle progression and apoptosis. *Exp. Cell Res.* 339: 320-332.
- O'Neill, K.L., et al. 2016. Inactivation of prosurvival Bcl-2 proteins activates Bax/Bak through the outer mitochondrial membrane. *Genes Dev.* 30: 973-988.
- Sun, Y., et al. 2017. Autophagy regulatory molecule, TMEM74, interacts with BIK and inhibits BIK-induced apoptosis. *Cell. Signal.* 36: 34-41.
- Bogenberger, J., et al. 2017. Combined venetoclax and alvocidib in acute myeloid leukemia. *Oncotarget* 8: 107206-107222.
- Cheng, F., et al. 2021. Unbiased label-free quantitative proteomics of cells expressing amyotrophic lateral sclerosis (ALS) mutations in CENF reveals activation of the apoptosis pathway: a workflow to screen pathogenic gene mutations. *Front. Mol. Neurosci.* 14: 627740.
- Zhu, R., et al. 2021. FLT3 tyrosine kinase inhibitors synergize with BCL-2 inhibition to eliminate FLT3/ITD acute leukemia cells through BIM activation. *Signal Transduct. Target Ther.* 6: 186.

## 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.