SANTA CRUZ BIOTECHNOLOGY, INC.

ΙκΒ-β (N-20): sc-969



BACKGROUND

On the basis of both functional and structural considerations, members of the $l\kappa B$ family of proteins can be divided into four groups. The first of these groups, $l\kappa B$ - α , includes the avian protein pp40 and the mammalian MAD-3, both of which inhibit binding of p50-p65 NF κ B complex or Rel protein to their cognate binding sites but do not inhibit the binding of p50 homodimer to κB sites, suggesting that the $l\kappa B$ - α family binds to the p65 subunit of p50-p65 heterocomplex through ankyrin repeats. The second member of the $l\kappa B$ family is represented by a protein designated $l\kappa B$ - β . The third group of $l\kappa B$ proteins is represented by $l\kappa B$ - γ , which is identical in sequence with the C-terminal domain of the p110 precursor of NF κB p50 and is expressed predominantly in lymphoid cells. An additional $l\kappa B$ family member, $l\kappa B$ - ϵ , has several phosphorylated forms and is primarily found complexed with Rel A and/or c-Rel.

CHROMOSOMAL LOCATION

Genetic locus: NFKBIB (human) mapping to 19q13.2; Nfkbib (mouse) mapping to 7 A3.

SOURCE

 $I\kappa B$ - β (N-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of $I\kappa B$ - β of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-969 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

 $I\kappa$ B-β (N-20) is recommended for detection of $I\kappa$ B-β of mouse, rat and 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)], 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).

 $I\kappa B\text{-}\beta$ (N-20) is also recommended for detection of $I\kappa B\text{-}\beta$ in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for $I\kappa$ B- β siRNA (h): sc-29362, $I\kappa$ B- β siRNA (m): sc-35623, $I\kappa$ B- β shRNA Plasmid (h): sc-29362-SH, $I\kappa$ B- β shRNA Plasmid (m): sc-35623-SH, $I\kappa$ B- β shRNA (h) Lentiviral Particles: sc-29362-V and $I\kappa$ B- β shRNA (m) Lentiviral Particles: sc-35623-V.

Molecular Weight of IκB-β: 45 kDa.

Positive Controls: $l\kappa B$ - β (h2): 293T Lysate: sc-159438, RAW 264.7 whole cell lysate: sc-2211 or WEHI-3 cell lysate: sc-3815.

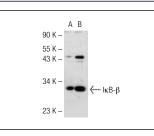
STORAGE

Store at 4° C, **D0 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.

DATA



 $I\kappa B$ - β (N-20): sc-969. Western blot analysis of $I\kappa B$ - β expression in non-transfected: sc-117752 (**A**) and human $I\kappa B$ - β transfected: sc-159438 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- 1. Hirano, F., et al. 1998. Alternative splicing variants of $I\kappa$ B- β establish differential NF κ B signal responsiveness in human cells. Mol. Cell. Biol. 18: 2596-2607.
- 2. Rauch, B.H., et al. 2000. PDGF-induced Akt phosphorylation does not activate NF κ B in human vascular smooth muscle cells and fibroblasts. FEBS Lett. 481: 3-7.
- Weaver, D.J., Jr., et al. 2001. Dendritic cells from nonobese diabetic mice exhibit a defect in NFκB regulation due to a hyperactive IκB kinase. J. Immunol. 167: 1461-1468.
- Ludwig, L., et al. 2001. NFκB is constitutively active in C-cell carcinoma and required for RET-induced transformation. Cancer Res. 61: 4526-4535.
- Bhattacharyya, S., et al. 2004. Immunoregulation of dendritic cells by IL-10 is mediated through suppression of the PI3K/Akt pathway and of IkB kinase activity. Blood 104: 1100-1109.
- Sen, P., et al. 2007. Apoptotic cells induce Mer tyrosine kinase-dependent blockade of NFκB activation in dendritic cells. Blood 109: 653-660.
- Miskolci, V., et al. 2007. NFκB is persistently activated in continuously stimulated human neutrophils. Mol. Med. 13: 134-142.
- 8. Hansberger, M.W., et al. 2007. I κ B kinase subunits α and γ are required for activation of NF κ B and induction of apoptosis by mammalian reovirus. J. Virol. 81: 1360-1371.
- Haldar, A.K., et al. 2010. *Leishmania donovani* isolates with antimonyresistant but not -sensitive phenotype inhibit sodium antimony gluconateinduced dendritic cell activation. PLoS Pathog. 6: e1000907.

MONOS Satisfation Guaranteed

Try **I\kappaB-\beta (D-3): sc-74451** or **I\kappaB-\beta (F-9): sc-390622**, our highly recommended monoclonal alternatives to I κ B- β (N-20).