## SANTA CRUZ BIOTECHNOLOGY, INC.

# ΙκΒ-β (S-20): sc-946



#### BACKGROUND

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

## CHROMOSOMAL LOCATION

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

#### SOURCE

 $I\kappa$ B- $\beta$  (S-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of  $I\kappa$ B- $\beta$  of mouse origin.

#### PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-946 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **APPLICATIONS**

 $I\kappa$ B-β (S-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), 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 I $\kappa$ B- $\beta$  siRNA (h): sc-29362, I $\kappa$ B- $\beta$  siRNA (m): sc-35623, I $\kappa$ B- $\beta$  shRNA Plasmid (h): sc-29362-SH, I $\kappa$ B- $\beta$  shRNA Plasmid (m): sc-35623-SH, I $\kappa$ B- $\beta$  shRNA (h) Lentiviral Particles: sc-29362-V and I $\kappa$ B- $\beta$  shRNA (m) Lentiviral Particles: sc-35623-V.

Molecular Weight of IκB-β: 45 kDa.

Positive Controls: Ramos cell lysate: sc-2216, 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



 $I\kappa B\mbox{-}\beta$  (S-20): sc-946. Western blot analysis of  $I\kappa B\mbox{-}\beta$  expression in Raw 264.7 (A), WEHI-231 (B) and Ramos (C) whole cell lysates.



 $\kappa B{-}\beta$  (S-20): sc-946. Immunofluorescence staining of methanol-fixed WEHI-231 cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic and faint nuclear staining of exocrine glandular cells (B).

#### SELECT PRODUCT CITATIONS

- Hajra, L., et al. 2000. The NFκB signal transduction pathway in aortic endothelial cells is primed for activation in regions predisposed to atherosclerotic lesion formation. Proc. Natl. Acad. Sci. USA 97: 9052-9057.
- Guha, M., et al. 2000. Molecular mechanism of tumor necrosis factor gene expression in monocytic cells via hyperglycemia-induced oxidant stress-dependent and independent pathways. J. Biol. Chem. 275: 17728-17739.
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- 4. Souvannavong, V., et al. 2007. Lipopolysaccharide from *Salmonella enterica* activates NF- $\kappa$ B through both classical and alternative pathways in primary B Lymphocytes. Infect. Immun. 75: 4998-5003.
- O'Dea, E.L., et al. 2007. A homeostatic model of IκB metabolism to control constitutive NF-κB activity. Mol. Syst. Biol. 3: 111.
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- Giannopoulou, M., et al. 2008. Hepatocyte growth factor exerts its antiinflammatory action by disrupting nuclear factor-κB signaling. Am. J. Pathol. 173: 30-41.
- Savinova, O.V., et al. 2009. The Nfkb1 and Nfkb2 proteins p105 and p100 function as the core of high-molecular-weight heterogeneous complexes. Mol. Cell 34: 591-602.

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 $\kappa$ B- $\beta$  (S-20).