SANTA CRUZ BIOTECHNOLOGY, INC.

# IκB-ε (M-121): sc-7156

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 four 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, which is identical in sequence with the C-terminal domain of the p110 precursor of NFκB p50 and is expressed predominantly in lymphoid cells. An additional IκB family member, IκB-ε, has several phosphorylated forms and is primarily found complexed with Rel A and/or c-Rel.

## CHROMOSOMAL LOCATION

Genetic locus: NFKBIE (human) mapping to 6p21.1; Nfkbie (mouse) mapping to 17 B3.

## SOURCE

IκB-ε (M-121) is a rabbit polyclonal antibody raised against amino acids 1-121 of IκB-ε 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.

## APPLICATIONS

IκB-ε (M-121) is recommended for detection of IκB-ε 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 IκB-ε siRNA (h): sc-35642, IκB-ε siRNA (m): sc-35643, IκB-ε shRNA Plasmid (h): sc-35642-SH, IκB-ε shRNA Plasmid (m): sc-35643-SH, IκB-ε shRNA (h) Lentiviral Particles: sc-35642-V and IκB-ε shRNA (m) Lentiviral Particles: sc-35643-V.

Molecular Weight of IκB-ε: 51 kDa.

Positive Controls: IκB-ε (m): 293T Lysate: sc-120929, THP-1 cell lysate: sc-2238 or WEHI-231 whole cell lysate: sc-2213.

## STORAGE

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

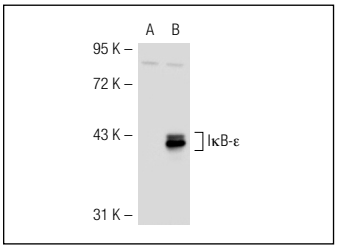
## PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

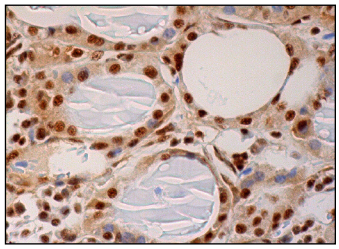
## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## DATA




IκB-ε (M-121): sc-7156. Western blot analysis of IκB-ε expression in non-transfected: sc-117752 (**A**) and mouse IκB-ε transfected: sc-120929 (**B**) 293T whole cell lysates.



IκB-ε (M-121): sc-7156. Immunoperoxidase staining of formalin fixed, paraffin-embedded human thyroid gland tissue showing nuclear and cytoplasmic staining of glandular cells.

## SELECT PRODUCT CITATIONS


1. Simeonidis, S., et al. 1999. Mechanisms by which IκB proteins control NFκB activity. Proc. Natl. Acad. Sci. USA 96: 49-54.
2. Cabannes, E., et al. 1999. Mutations in the IκB-α gene in Hodgkin's disease suggest a tumour suppressor role for IκB-α. Oncogene 18: 3063-3070.
3. Nasuhara, Y., et al. 1999. Differential IκB kinase activation and IκB-α degradation by interleukin-1β and tumor necrosis factor α in human U-937 monocytic cells. J. Biol. Chem. 274: 19965-19972.
4. Solan, N., et al. 2002. RelB cellular regulation and transcriptional activity are regulated by p100. J. Biol. Chem. 277: 1405-1418.
5. Goudeau, B., et al. 2003. IκBα/IκBε deficiency reveals that a critical NFκB dosage is required for lymphocyte survival. Proc. Natl. Acad. Sci. USA 100: 15800-15805.
6. Li, Y., et al. 2005. Role for protein kinase C (PKC) in TCR/CD28-mediated signaling through the canonical but not the non-canonical pathway for NFκB activation. J. Biol. Chem. 280: 1217-1223.
7. Sen, P., et al. 2007. Apoptotic cells induce Mer tyrosine kinase-dependent blockade of NFκB activation in dendritic cells. Blood 109: 653-660.
8. Hansberger, M.W., et al. 2007. IκB kinase subunits α and γ are required for activation of NFκB and induction of apoptosis by mammalian reovirus. J. Virol. 81: 1360-1371.
9. Haldar, A.K., et al. 2010. *Leishmania donovani* isolates with antimony-resistant but not -sensitive phenotype inhibit sodium antimony gluconate-induced dendritic cell activation. PLoS Pathog. 6: e1000907.