SANTA CRUZ BIOTECHNOLOGY, INC.

IκB-ε (A-20): sc-324882

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

IκB-ε (I-κ-B-ε), also known as NFKBIE (NFκB inhibitor epsilon) or IKBE, is a 500 amino acid protein that belongs to the NFκB inhibitor family. Localizing to the cytoplasm, IκB-ε is highly expressed in spleen, testis and lung, with lower levels of expression found in kidney, pancreas, heart, placenta, brain, granulocytes and macrophages. IκB-ε inhibits c-Rel and NFκB subunits p50, p52 and p65 by forming a complex with them in the cytoplasm, preventing them from activating genes in the nucleus. IκB-ε undergoes serine phosphorylation, resulting in the protein being marked for destruction via the ubiquitination pathway. Containing six ANK repeats, the gene encoding IκB-ε maps to human chromosome 6p21.1.

REFERENCES

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2. Li, Z. and Nabel, G.J. 1997. A new member of the I κB protein family, I κB ε, inhibits RelA (p65)-mediated NFκB transcription. Mol. Cell. Biol. 17: 6184-6190.
3. Hoffmann, A., et al. 2002. The IκB-NFκB signaling module: temporal control and selective gene activation. Science 298: 1241-1245.
4. Mungall, A.J., et al. 2003. The DNA sequence and analysis of human chromosome 6. Nature 425: 805-811.
5. O'Dea, E.L., et al. 2007. A homeostatic model of IκB metabolism to control constitutive NFκB activity. Mol. Syst. Biol. 3: 111.
6. Komissarova, E.V., et al. 2008. Gene expression levels in normal human lymphoblasts with variable sensitivities to arsenite: identification of GGT1 and NFKBIE expression levels as possible biomarkers of susceptibility. Toxicol. Appl. Pharmacol. 226: 199-205.
7. Potter, C., et al. 2010. Association between anti-tumour necrosis factor treatment response and genetic variants within the TLR and NFκB signalling pathways. Ann. Rheum. Dis. 69: 1315-1320.
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CHROMOSOMAL LOCATION

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

SOURCE

IκB-ε (A-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of IκB-ε of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-324882 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IκB-ε (A-20) 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), 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); non cross-reactive with other IκB family members.

IκB-ε (A-20) is also recommended for detection of IκB-ε in additional species, including bovine.

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: 53 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.