SANTA CRUZ BIOTECHNOLOGY, INC.

IκB-α (FL): sc-847

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: NFKBIA (human) mapping to 14q13.2; Nfkbia (mouse) mapping to 12 C1.

SOURCE

IκB-α (FL) is a rabbit polyclonal antibody raised against amino acids 1-317 representing full length IκB-α 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.

Available as agarose conjugate for immunoprecipitation, sc-847 AC, 500 µg/0.25 ml agarose in 1 ml.

APPLICATIONS

IκB-α (FL) is recommended for detection of IκB-α 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).

IκB-α (FL) is also recommended for detection of IκB-α in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for IκB-α siRNA (h): sc-29360, IκB-α siRNA (m): sc-29361, IκB-α shRNA Plasmid (h): sc-29360-SH, IκB-α shRNA Plasmid (m): sc-29361-SH, IκB-α shRNA (h) Lentiviral Particles: sc-29360-V and IκB-α shRNA (m) Lentiviral Particles: sc-29361-V.

Molecular Weight of IκB-α: 35-41 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

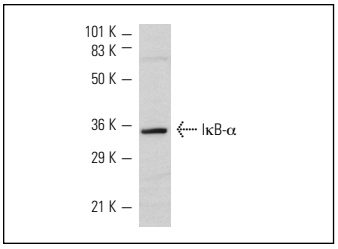
STORAGE

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

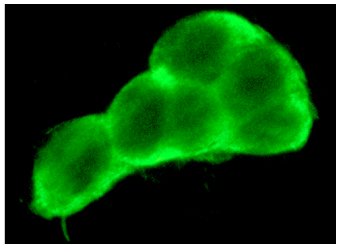
RESEARCH USE

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

DATA



IκB-α (FL): sc-847. Western blot analysis of IκB-α expression in A-431 whole cell lysate.



IκB-α (FL): sc-847. Immunofluorescence staining of methanol-fixed A-431 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Singh, S., et al. 1996. Site specific tyrosine phosphorylation of IκB-α negatively regulates its inducible phosphorylation and degradation. J. Biol. Chem. 271: 31049-31054.
2. Sperone, A., et al. 2011. The transcription factor Erg inhibits vascular inflammation by repressing NFκB activation and proinflammatory gene expression in endothelial cells. Arterioscler. Thromb. Vasc. Biol. 31: 142-150.
3. Essafi, M., et al. 2011. Cell-penetrating TAT-FOXO3 fusion proteins induce apoptotic cell death in leukemic cells. Mol. Cancer Ther. 10: 37-46.
4. Chiou, W.F., et al. 2011. 1,3,5-trihydroxy-4-prenylxanthone represses lipopolysaccharide-induced iNOS expression via impeding posttranslational modification of IRAK-1. Biochem. Pharmacol. 81: 752-760.
5. Chiou, W.F., et al. 2011. Psoralidin inhibits LPS-induced iNOS expression via repressing Syk-mediated activation of PI3K-IKK-IκB signaling pathways. Eur. J. Pharmacol. 650: 102-109.
6. Lin, K.L., et al. 2011. Antimetastatic effect and mechanism of ovatodiolide in MDA-MB-231 human breast cancer cells. Chem. Biol. Interact. 194: 148-158.
7. Lin, K.L., et al. 2012. Antimetastatic potential of cardiotoxin III involves inactivation of PI3K/Akt and p38 MAPK signaling pathways in human breast cancer MDA-MB-231 cells. Life Sci. 90: 54-65.
8. Schuett, H., et al. 2012. Transsignaling of interleukin-6 crucially contributes to atherosclerosis in mice. Arterioscler. Thromb. Vasc. Biol. 32: 281-290.

MONOS Satisfaction Guaranteed

Try **IκB-α (H-4): sc-1643** or **IκB-α (B-3): sc-373893**, our highly recommended monoclonal alternatives to IκB-α (FL). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **IκB-α (H-4): sc-1643**.