SANTA CRUZ BIOTECHNOLOGY, INC.

IκB-α (B-3): sc-373893



BACKGROUND

On the basis of both functional and structural considerations, members of the ${\rm l\kappa B}$ family of proteins can be divided into four groups. The first of these groups, ${\rm l\kappa B}$ - 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 κ B sites, suggesting that the ${\rm l\kappa B}$ - α family binds to the p65 subunit of p50-p65 heterocomplex through ankyrin repeats. The second member of the ${\rm l\kappa B}$ family is represented by a protein designated ${\rm l\kappa B}$ - β . The third group of ${\rm l\kappa B}$ proteins is represented by ${\rm l\kappa B}$ - γ , a protein identical in sequence with the C-terminal domain of the p110 precursor of NF κ B p50 and expressed predominantly in lymphoid cells. An additional ${\rm l\kappa B}$ family member has been identified as ${\rm l\kappa B}$ - ϵ , a protein which 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.

SOURCE

 $I\kappa$ B- α (B-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 2-27 within the N-terminus of $I\kappa$ B- α of human origin.

PRODUCT

Each vial contains 200 μg IgA kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-373893 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

 $I\kappa$ B-α (B-3) is recommended for detection of $I\kappa$ B-α of human origin by Western Blotting (starting dilution 1:100, 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).

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

Molecular Weight of IkB-a: 35-41 kDa.

Positive Controls: U-2 OS cell lysate: sc-2295, Jurkat whole cell lysate: sc-2204 or HL-60 whole cell lysate: sc-2209.

RESEARCH USE

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

PROTOCOLS

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

STORAGE

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

DATA





IxB- α (B-3): sc-373893. Western blot analysis of IxB- α expression in U-2 OS whole cell lysate.

expression in Jurkat whole cell lysate.

SELECT PRODUCT CITATIONS

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- 3. Zhang, D., et al. 2015. Pinocembrin inhibits matrix metalloproteinase expression in chondrocytes. IUBMB Life 67: 36-41.
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- 6. Wang, Y., et al. 2019. Chemerin/ChemR23 axis triggers an inflammatory response in keratinocytes through ROS-SIRT1-NF κ B signaling. J. Cell. Biochem. 120: 6459-6470.
- 7. Zhou, Q., et al. 2019. Ubiquitin-specific protease 3 targets TRAF6 for deubiquitination and suppresses IL-1 β induced chondrocyte apoptosis. Biochem. Biophys. Res. Commun. 514: 482-489.
- Pablos, A., et al. 2020. Protective effects of foam rolling against inflammation and notexin induced muscle damage in rats. Int. J. Med. Sci. 17: 71-81.
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See $I\kappa B-\alpha$ (H-4): sc-1643 for $I\kappa B-\alpha$ antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor[®] 488, 546, 594, 647, 680 and 790.