

I κ B- α (H-4): sc-1643

BACKGROUND

On the basis of both functional and structural considerations, members of the I κ B family of proteins can be divided into four groups. The first of these groups, I κ 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 I κ B- α family binds to the p65 subunit of p50-p65 heterocomplex through ankyrin repeats. The second member of the I κ B family is represented by a protein designated I κ B- β . The third group of I κ B proteins is represented by I κ B- γ , which is 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 I κ B family member, I κ B- 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

I κ B- α (H-4) is a mouse monoclonal antibody raised against amino acids 1-317 representing full length I κ B- α of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

I κ B- α (H-4) is available conjugated to agarose (sc-1643 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-1643 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-1643 PE), fluorescein (sc-1643 FITC), Alexa Fluor[®] 488 (sc-1643 AF488), Alexa Fluor[®] 546 (sc-1643 AF546), Alexa Fluor[®] 594 (sc-1643 AF594) or Alexa Fluor[®] 647 (sc-1643 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-1643 AF680) or Alexa Fluor[®] 790 (sc-1643 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

In addition, I κ B- α (H-4) is available conjugated to TRITC (sc-1643 TRITC, 200 μ g/ml), for IF, IHC(P) and FCM.

APPLICATIONS

I κ B- α (H-4) is recommended for detection of I κ B- α of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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), flow cytometry (1 μ g per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

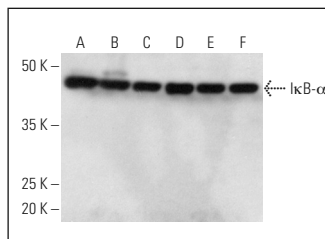
Suitable for use as control antibody for I κ B- α siRNA (h): sc-29360, I κ B- α siRNA (m): sc-29361, I κ B- α shRNA Plasmid (h): sc-29360-SH, I κ B- α shRNA Plasmid (m): sc-29361-SH, I κ B- α shRNA (h) Lentiviral Particles: sc-29360-V and I κ B- α shRNA (m) Lentiviral Particles: sc-29361-V.

Molecular Weight of I κ B- α : 35-41 kDa.

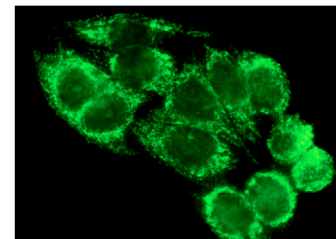
STORAGE

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

DATA



I κ B- α (H-4): sc-1643. Direct western blot analysis of I κ B- α expression in NIH/3T3 (A), KNRK (B), PC-3 (C), HUV-EC-C (D), A549 (E) and HeLa (F) whole cell lysates.



I κ B- α (H-4) AF488: sc-1643 AF488. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

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- Ye, J.S., et al. 2014. Lysine 63-linked TANK-binding kinase 1 ubiquitination by mindbomb E3 ubiquitin protein ligase 2 is mediated by the mitochondrial antiviral signaling protein. *J. Virol.* 88: 12765-12776.
- Shukla, S., et al. 2015. Suppression of NF κ B and NF κ B-regulated gene expression by apigenin through I κ B α and IKK pathway in TRAMP mice. *PLoS ONE* 10: e0138710.
- Martinez, P.F., et al. 2016. Modulation of MAPK and NF-954;B signaling pathways by antioxidant therapy in skeletal muscle of heart failure rats. *Cell. Physiol. Biochem.* 39: 371-384.
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- Osako, M., et al. 2018. A20 restores phorbol ester-induced differentiation of THP-1 cells in the absence of nuclear factor- κ B activation. *J. Cell. Biochem.* 119: 1475-1487.
- Comito, G., et al. 2019. Lactate modulates CD4⁺ T-cell polarization and induces an immunosuppressive environment, which sustains prostate carcinoma progression via TLR8/miR21 axis. *Oncogene* 38: 3681-3695.
- Kong, W., et al. 2020. Hesperetin reverses P-glycoprotein-mediated cisplatin resistance in DDP-resistant human lung cancer cells via modulation of the nuclear factor- κ B signaling pathway. *Int. J. Mol. Med.* 45: 1213-1224.

RESEARCH USE

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

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