**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 p10 precursor of NFκB p50 and 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 (H-4) is a mouse monoclonal 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.

IκB-α (H-4) is available conjugated to agarose (sc-1643 AC), 500 μg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-1643 HRP), 200 μg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-1643 PE), fluorescein (sc-1643 FITC), Alexa Fluor® 488 (sc-1643 AF488) or Alexa Fluor® 647 (sc-1643 AF647), 200 μg/ml, for IF, IHC(P) and FCM.

In addition, IκB-α (H-4) is available conjugated to either TRITC (sc-1643 TRITC, 200 μg/ml) or Alexa Fluor® 405 (sc-1643 AF405), 100 μg/2 ml, for IF, IHC(P) and FCM.

**APPLICATIONS**

IκB-α (H-4) 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 μg per 1 x 10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IκB-α siRNA (h): sc-29360, IκB-α siRNA (m): sc-29381, IκB-α shRNA Plasmid (h): sc-29380-SH, IκB-α shRNA Plasmid (m): sc-29381-SH, IκB-α shRNA (m) 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: KNRK whole cell lysate: sc-2214, HeLa whole cell lysate: sc-2200 or NIH/3T3 whole cell lysate: sc-2210.

**STORAGE**

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

**DATA**

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

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

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