**BACKGROUND**

On the basis of both functional and structural considerations, members of the \( \kappa \)B family of proteins can be divided into four groups. The first of these groups, \( \kappa \)B-\( \alpha \), includes the avian protein pp40 and the mammalian MAD-3, both of which inhibit binding of p50-p65 NF\( \kappa \)B complex or Rel protein to their cognate binding sites but do not inhibit the binding of p50 homodimer to \( \kappa \)B sites, suggesting that the \( \kappa \)B-\( \alpha \) family binds to the p65 subunit of p50-p65 heterocomplex through ankyrin repeats. The second member of the \( \kappa \)B family is represented by a protein designated \( \kappa \)B-\( \beta \). The third group of \( \kappa \)B proteins is represented by \( \kappa \)B-y, identical in sequence with the C-terminal domain of the p110 precursor of NF\( \kappa \)B p50 and expressed predominantly in lymphoid cells. An additional \( \kappa \)B family member has been identified as \( \kappa \)B-\( \epsilon \), 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; Nfkbia (mouse) mapping to 12 C1.

**SOURCE**

p-\( \kappa \)B-\( \alpha \) (B-9) is a mouse monoclonal antibody raised against Ser 32 phosphorylated \( \kappa \)B-\( \alpha \) of human origin.

**PRODUCT**

Each vial contains 200 \( \mu \)g IgG\( _{2b} \), kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

p-\( \kappa \)B-\( \alpha \) (B-9) is available conjugated to agarose (sc-8404 AC), 500 \( \mu \)g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-8404 HRP), 200 \( \mu \)g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-8404 PE), fluorescent (sc-8404 FITC), Alexa Fluor\( ^{®} \) 488 (sc-8404 AF488), Alexa Fluor\( ^{®} \) 546 (sc-8404 AF546), Alexa Fluor\( ^{®} \) 594 (sc-8404 AF594) or Alexa Fluor\( ^{®} \) 647 (sc-8404 AF647), 200 \( \mu \)g/ml, for WB (RGB), IF, IHC(P) and FC; and to either Alexa Fluor\( ^{®} \) 680 (sc-8404 AF680) or Alexa Fluor\( ^{®} \) 790 (sc-8404 AF790), 200 \( \mu \)g/ml, for Near-Infrared (NIR) WB, IF and FC.

Blocking peptide available for competition studies, sc-8404 P, (100 \( \mu \)g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

**APPLICATIONS**

p-\( \kappa \)B-\( \alpha \) (B-9) is recommended for detection of \( \kappa \)B-\( \alpha \) phosphorylated at Ser 32 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:10000), immunoprecipitation [1-2 \( \mu \)g per 100-500 \( \mu \)g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

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

Molecular Weight of p-\( \kappa \)B-\( \alpha \): 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**

Western blot analysis of p-\( \kappa \)B-\( \alpha \) phosphorylation in untreated (A, C) and TNF-\( \alpha \) induced (B, D) HeLa cells. Antibodies tested include p-\( \kappa \)B-\( \alpha \) (B-9): sc-8404 (A, B) and \( \kappa \)B-\( \alpha \) (H-4): sc-1643 (C, D).

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

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