

p-IκB-α (Ser 32/36): sc-101713

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, a protein identical in sequence with the C-terminal domain of the p110 precursor of NFκB p50 and expressed predominantly in lymphoid cells. An additional IκB family member has been identified as IκB-ε, a protein which has several phosphorylated forms and is primarily found complexed with RelA and/or c-Rel. There is a consensus phosphorylation site for CKII between residues 269-299, and within this range there are three phosphorylation sites that important for constitutive phosphorylation and intrinsic stability of IκB-α: Ser 283, Thr 291 and Thr 299.

CHROMOSOMAL LOCATION

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

SOURCE

p-IκB-α (Ser 32/36) is a rabbit polyclonal antibody raised against a short amino acid sequence containing Ser 32/36 phosphorylated IκB-α of human origin.

PRODUCT

Each vial contains 100 μg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

p-IκB-α (Ser 32/36) is recommended for detection of Ser 32 and Ser 36 dually phosphorylated 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

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 p-IκB-α: 41 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136 or TNFα treated HEK293 whole cell lysate.

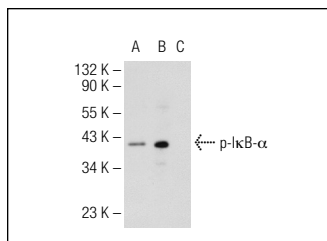
STORAGE

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

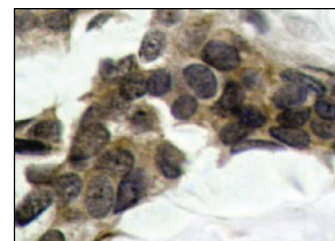
RESEARCH USE

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

DATA



p-IκB-α (Ser 32/36): sc-101713. Western blot analysis of IκB-α phosphorylation in untreated (A), TNFα treated (B) and TNFα and lambda protein phosphatase (sc-200312A) treated (C) HEK293 whole cell lysates.



p-IκB-α (Ser 32/36): sc-101713. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

- Petro, J.B., et al. 2001. Phospholipase C-γ 2 couples Bruton's tyrosine kinase to the NFκB signaling pathway in B lymphocytes. *J. Biol. Chem.* 276: 1715-1719.
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- Dragoni, S., et al. 2011. Vascular endothelial growth factor stimulates endothelial colony forming cells proliferation and tubulogenesis by inducing oscillations in intracellular Ca²⁺ concentration. *Stem Cells* 29: 1898-1907.
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- Ortis, F., et al. 2012. Differential usage of NFκB activating signals by IL-1β and TNF-α in pancreatic β cells. *FEBS Lett.* 586: 984-989.
- Radovic, J., et al. 2012. Cell-type dependent response of melanoma cells to aloe emodin. *Food Chem. Toxicol.* 50: 3181-3189.
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Try **p-IκB-α (B-9): sc-8404**, our highly recommended monoclonal alternative to p-IκB-α (Ser 32/36). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **p-IκB-α (B-9): sc-8404**.