

IkB-β (H-3): sc-515699

BACKGROUND

On the basis of both functional and structural considerations, members of the IkB family of proteins can be divided into four groups. The first of these groups, IkB-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 IkB-α family binds to the p65 subunit of p50-p65 heterocomplex through ankyrin repeats. The second member of the IkB family is represented by a protein designated IkB-β. The third group of IkB proteins is represented by IkB-γ, which is identical in sequence with the C-terminal domain of the p110 precursor of NFκB p50 and is expressed predominantly in lymphoid cells. An additional IkB family member, IkB-ε, has several phosphorylated forms and is primarily found complexed with Rel A and/or c-Rel.

REFERENCES

1. Ghosh, S., et al. 1990. Activation *in vitro* to NFκB by phosphorylation of its inhibitor IkB. *Nature* 344: 678-682.
2. Kerr, L.D., et al. 1991. The Rel-associated pp40 protein prevents DNA binding of Rel and NFκB: relationship with IkB-β and regulation by phosphorylation. *Genes Dev.* 5: 1464-1476.
3. Davis, N., et al. 1991. Rel-associated pp40: an inhibitor of the Rel family of transcription factors. *Science* 252: 1268-1271.
4. Haskill, S., et al. 1991. Characterization of an immediate-early gene induced in adherent monocytes that encodes IkB-like activity. *Cell* 65: 1281-1289.
5. Inoue, J., et al. 1992. IkB-γ, a 70 kd protein identical to the C-terminal half of p110 NFκB; a new member of the IkB family. *Cell* 68: 1109-1120.
6. Thompson, J.E., et al. 1995. IkB-β regulates the persistent response in biphasic activation of NFκB. *Cell* 80: 573-582.
7. Whiteside, S.T., et al. 1997. IkB-ε, a novel member of the IkB family, controls RelA and cRel NFκB activity. *EMBO J.* 16: 1413-1426.
8. Simeonidis, S., et al. 1997. Cloning and functional characterization of mouse IkB-ε. *Proc. Natl. Acad. Sci. USA* 94: 14372-14377.
9. Sriwijitkamol, A. et al. 2006. Reduced skeletal muscle inhibitor of κB β content is associated with Insulin resistance in subjects with type 2 diabetes: reversal by exercise training. *Diabetes* 55: 760-767.

CHROMOSOMAL LOCATION

Genetic locus: Nfkbib (mouse) mapping to 7 A3.

SOURCE

IkB-β (H-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 315-339 near the C-terminus of IkB-β of mouse origin.

PRODUCT

Each vial contains 200 μg IgG₃ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

IkB-β (H-3) is recommended for detection of IkB-β of mouse and rat 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 IkB-β siRNA (m): sc-35623, IkB-β shRNA Plasmid (m): sc-35623-SH and IkB-β shRNA (m) Lentiviral Particles: sc-35623-V.

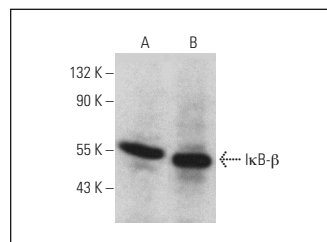
Molecular Weight of IkB-β: 45 kDa.

Positive Controls: F9 cell lysate: sc-2245 or CTLL-2 cell lysate: sc-2242.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



IkB-β (H-3): sc-515699. Western blot analysis of IkB-β expression in CTLL-2 (A) and F9 (B) whole cell lysates.

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.

PROTOCOLS

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