

# ▶ IκB-β (1-359): sc-4327 WB

## 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 p110 precursor of NFκB p50 and is 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.

## REFERENCES

1. Ghosh, S. and Baltimore, D. 1990. Activation *in vitro* to NFκB by phosphorylation of its inhibitor IκB. *Nature* 344: 678-682.
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3. Davis, N., Ghosh, S., Simmons, D.L., Tempst, P., Liou, H.-C., Baltimore, D. and Bose, H.R. 1991. Rel-associated pp40: an inhibitor of the Rel family of transcription factors. *Science* 252: 1268-1271.
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5. Inoue, J.I., Kerr, L.D., Kakizuka, A. and Verma, I.M. 1992. IκB-γ, a 70 kd protein identical to the C-terminal half of p110 NFκB: a new member of the IκB family. *Cell* 68: 1109-1120.
6. Thompson, J.E., Phillips, R.J., Erdjument-Bromage, H., Tempst, P. and Ghosh, S. 1995. IκB-β regulates the persistent response in biphasic activation of NFκB. *Cell* 80: 573-582.
7. Whiteside, S.T., Epinat, J.C., Rice, N.R. and Israel, A. 1997. IκB-ε, a novel member of the IκB family, controls RelA and cRel NFκB activity. *EMBO J.* 16: 1413-1426.
8. Simeonidis, S., Liang, S., Chen, G. and Thanos, D. 1997. Cloning and functional characterization of mouse IκB-ε. *Proc. Natl. Acad. Sci. USA* 94: 14372-14377.

## SOURCE

IκB-β (1-359) is expressed in *E. coli* as a 67 kDa tagged fusion protein corresponding to amino acids 1-359 of IκB-β of mouse origin.

## PRODUCT

IκB-β (1-359) is purified from bacterial lysates (>98%) by column chromatography; supplied as 10 µg in 0.1 ml SDS-PAGE loading buffer.

## APPLICATIONS

IκB-β (1-359) is suitable as a Western blotting control for sc-945, sc-946, sc-969 and sc-9130.

Molecular Weight of IκB-β: 45 kDa.

## SELECT PRODUCT CITATIONS

1. Planavila, A., Rodríguez-Calvo, R., de Arriba, A.F., Sánchez, R.M., Laguna, J.C., Merlos, M. and Vazquez-Carrera, M. 2006. Inhibition of cardiac hypertrophy by triflusal (4-trifluoromethyl derivative of salicylate) and its active metabolite. *Mol. Pharmacol.* 69: 1174-1181.

## STORAGE

Store at -20° C; stable for one year from the date of shipment.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.