

I κ B- ϵ (m): 293T Lysate: sc-120929

BACKGROUND

On the basis of both functional and structural considerations, members of the I κ B family of proteins can be divided into four groups. The first of these groups, I κ B- α , includes the avian protein pp40 and the mammalian MAD-3, both of which inhibit binding of p50-p65 NF κ B complex or Rel protein to their cognate binding sites but do not inhibit the binding of p50 homodimer to κ B sites, suggesting that the I κ B- α family binds to the p65 subunit of p50-p65 heterocomplex through ankyrin repeats. The second member of the I κ B family is represented by a protein designated I κ B- β . The third group of I κ B proteins is represented by I κ B- γ , which is identical in sequence with the C-terminal domain of the p110 precursor of NF κ B p50 and is expressed predominantly in lymphoid cells. An additional I κ B family member, I κ B- 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 NF κ B by phosphorylation of its inhibitor I κ B. *Nature* 344: 678-682.
2. Kerr, L.D., et al. 1991. The Rel-associated pp40 protein prevents DNA binding of Rel and NF κ B: relationship with I κ B- 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* 253: 1268-1271.
4. Haskill, S., et al. 1991. Characterization of an immediate-early gene induced in adherent monocytes that encodes I κ B-like activity. *Cell* 65: 1281-1289.
5. Inoue, J., et al. 1992. I κ B- γ , a 70 kd protein identical to the C-terminal half of p110 NF κ B; a new member of the I κ B family. *Cell* 68: 1109-1120.
6. Thompson, J.E., et al. 1995. I κ B- β regulates the persistent response in biphasic activation of NF κ B. *Cell* 80: 573-582.
7. Whiteside, S.T., et al. 1997. I κ B- ϵ , a novel member of the I κ B family, controls RelA and cRel NF κ B activity. *EMBO J.* 16: 1413-1426.
8. Simeonidis, S., et al. 1997. Cloning and functional characterization of mouse I κ B- ϵ . *Proc. Natl. Acad. Sci. USA* 94: 14372-14377.
9. Lopez-Bojorquez, L.N., et al. 2004. NF κ B translocation and endothelial cell activation is potentiated by macrophage-released signals co-secreted with TNF- α and IL-1 β . *Inflamm. Res.* 53: 567-575.

CHROMOSOMAL LOCATION

Genetic locus: Nfkbie (mouse) mapping to 17 B3.

PRODUCT

I κ B- ϵ (m): 293T Lysate represents a lysate of mouse I κ B- ϵ transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

I κ B- ϵ (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive I κ B- ϵ antibodies. Recommended use: 10-20 μ l per lane.

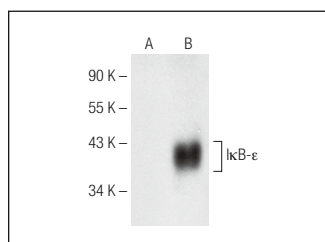
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

I κ B- ϵ (D-7): sc-373958 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse I κ B- ϵ expression in I κ B- ϵ transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

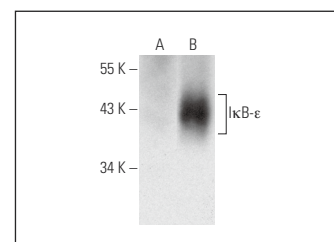
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



I κ B- ϵ (D-7): sc-373958. Western blot analysis of I κ B- ϵ expression in non-transfected: sc-117752 (A) and mouse I κ B- ϵ transfected: sc-120929 (B) 293T whole cell lysates.



I κ B- ϵ (F-9): sc-365899. Western blot analysis of I κ B- ϵ expression in non-transfected: sc-117752 (A) and mouse I κ B- ϵ transfected: sc-120929 (B) 293T whole cell lysates.

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.