#9243 Store at -20°C

NF-κB Control Cell Extracts

☑ 200 µl
(10 western blots)

Cell Signaling TECHNOLOGY®

Orders ■ 877-616-CELL (2355)
orders@cellsignal.com
Support ■ 877-678-TECH (8324)
info@cellsignal.com
Web ■ www.cellsignal.com

rev. 01/10/18

For Research Use Only. Not For Use In Diagnostic Procedures.

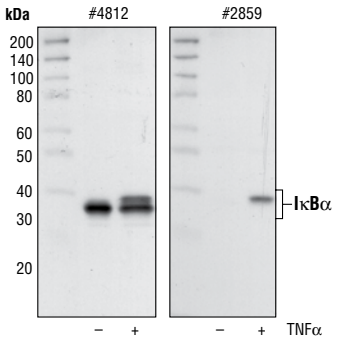
Product Includes	Item #	Quantity
NF-κB Control Cell Extracts (HeLa untreated)	39969	200 ul
NF-κB Control Cell Extracts (HeLa + hTNF-alpha)	65657	200 ul

Description: *NF-κB Control Cell Extracts (HeLa untreated):* Total cell extracts from HeLa cells serve as a negative control. Supplied SDS Sample Buffer.

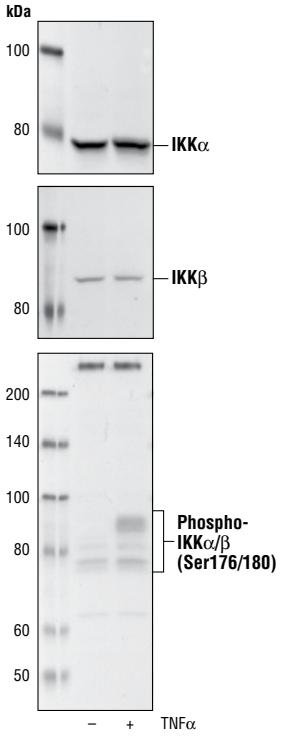
NF-κB Control Cell Extracts (HeLa + hTNF-alpha): Total cell extracts from HeLa cells treated with Human Tumor Necrosis Factor-α (hTNF-α) #8902 serve as a positive control. Supplied SDS Sample Buffer.

Background: Transcription factors of the nuclear factor κB (NF-κB)/Rel family play a pivotal role in inflammatory and immune responses (1,2). There are five family members in mammals: RelA, c-Rel, RelB, NF-κB1 (p105/p50), and NF-κB2 (p100/p52). Both p105 and p100 are proteolytically processed by the proteasome to produce p50 and p52, respectively. Rel proteins bind p50 and p52 to form dimeric complexes that bind DNA and regulate transcription. In unstimulated cells, NF-κB is sequestered in the cytoplasm by IκB inhibitory proteins (3-5). NF-κB-activating agents can induce the phosphorylation of IκB proteins, targeting them for rapid degradation through the ubiquitin-proteasome pathway and releasing NF-κB to enter the nucleus where it regulates gene expression (6-8). NIK and IKKα (IKK1) regulate the phosphorylation and processing of NF-κB2 (p100) to produce p52, which translocates to the nucleus (9-11).

Directions for Use: Boil for 3 minutes prior to use. Load 20 µl of untreated and hTNF-α treated NF-κB Control Cell Extracts per lane.



Western blot analysis of NF-κB Control Cell Extracts #9243, using IκBα (44D4) Rabbit mAb #4812 (left) and Phospho-IκBα (Ser32) (14D4) Rabbit mAb #2859 (right).



Western blot analysis of NF-κB Control Cell Extracts #9243, using IKKα Antibody #2682 (upper), IKKβ (2C8) Rabbit mAb #2370 (middle) and Phospho-IKKα/β (Ser176/180) (16A6) Rabbit mAb #2697 (lower).

Storage: *Supplied in SDS Sample Buffer:* 62.5 mM Tris-HCl (pH 6.8 at 25°C), 2% w/v SDS, 10% glycerol, 50 mM DTT, 0.01% w/v bromophenol blue or phenol red. *Store at –20°C or –80°C for long-term storage.*

For product specific protocols and a complete listing of recommended companion products, please see the product web page at www.cellsignal.com.

Background References:

(1) Baeuerle, P.A. and Henkel, T. (1994) *Annu. Rev. Immunol.* 12, 141–179.

(2) Baeuerle, P.A. and Baltimore, D. (1996) *Cell* 87, 13–20.

(3) Haskill, S. et al. (1991) *Cell* 65, 1281–1289.

(4) Thompson, J.E. et al. (1995) *Cell* 80, 573–582.

(5) Whiteside, S.T. et al. (1997) *EMBO J.* 16, 1413–1426.

(6) Traenckner, E.B. et al. (1995) *EMBO J.* 14, 2876–2883.

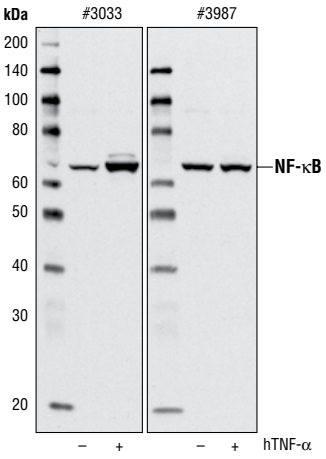
(7) Scherer, D.C. et al. (1995) *Proc. Natl. Acad. Sci. USA* 92, 11259–11263.

(8) Chen, Z.J. et al. (1996) *Cell* 84, 853–862.

(9) Senftleben, U. et al. (2001) *Science* 293, 1495–1499.

(10) Coope, H.J. et al. (2002) *EMBO J.* 21, 5375–5385.

(11) Xiao, G. et al. (2001) *Mol. Cell* 7, 401–409.



Western blot analysis of NF-κB Control Cell Extracts #9243, using Phospho-NF-κB p65 (Ser536) (93H1) Rabbit mAb #3033 (left) and NF-κB p65 (E498) Antibody #3987 (right).