

# IKK $\alpha$ Antibody

✓ 100  $\mu$ l  
(10 western blots)

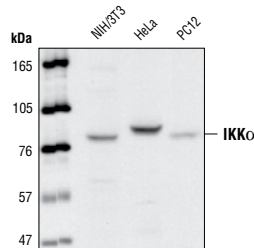
**Orders** ■ 877-616-CELL (2355)  
orders@cellsignal.com  
**Support** ■ 877-678-TECH (8324)  
info@cellsignal.com  
**Web** ■ www.cellsignal.com

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP Endogenous	H, M, R, Mk, (B)	85 kDa	Rabbit**

**Background:** The NF $\kappa$ B/Rel transcription factors are present in the cytosol in an inactive state, complexed with the inhibitory I $\kappa$ B proteins (1–3). Most agents that activate NF $\kappa$ B do so through a common pathway based on phosphorylation-induced, proteasome-mediated degradation of I $\kappa$ B (3–7). The key regulatory step in this pathway involves activation of a high molecular weight I $\kappa$ B kinase (IKK) complex, whose catalysis is generally carried out by three tightly associated IKK subunits. IKK $\alpha$  and IKK $\beta$  serve as the catalytic subunits of the kinase. IKK $\gamma$  serves as the regulatory subunit (8–9). Activation of IKK depends on phosphorylation; serines 177 and 181 in the activation loop of IKK $\beta$  (176 and 180 in IKK $\alpha$ ) are the specific sites whose phosphorylation causes conformational changes resulting in kinase activation (10–13).



Western blot analysis of extracts from NIH/3T3, HeLa and PC12 cells, using IKK $\alpha$  Antibody.

**Specificity/Sensitivity:** IKK $\alpha$  Antibody detects endogenous levels of total IKK $\alpha$  protein. The antibody does not cross-react with IKK $\beta$  or IKK $\gamma$ .

**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the 20 amino-terminal residues of human IKK $\alpha$ . Antibodies are purified by protein A and peptide affinity chromatography.

**Background References:**

- (1) Baeuerle, P.A. et al. (1988) *Science* 242, 540–546.
- (2) Beg, A.A. et al. (1993) *Genes Dev.* 7, 2064–2070.
- (3) Finco, T.S. et al. (1994) *Proc. Natl. Acad. Sci. USA* 91, 11884–11888.
- (4) Brown, K. et al. (1995) *Science* 267, 1485–1488.
- (5) Brockman, J.A. et al. (1995) *Mol. Cell. Biol.* 15, 2809–2818.
- (6) Traenckner, E.B. et al. (1995) *EMBO J.* 14, 2876–2883.
- (7) Chen, Z.J. et al. (1996) *Cell* 84, 853–862.
- (8) Zandi, E. et al. (1997) *Cell* 91, 243–252.
- (9) Karin, M. et al. (1999) *Oncogene* 18, 6867–6874.
- (10) DiDonato, J.A. et al. (1997) *Nature* 388, 548–554.
- (11) Mercurio, F. et al. (1997) *Science* 278, 860–866.
- (12) Johnson, L.N. et al. (1996) *Cell* 85, 149–158.
- (13) Delhase, M. et al. (1999) *Science* 284, 309–313.

**IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.**

Entrez-Gene ID # 1147  
Swiss-Prot Acc. # O15111

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100  $\mu$ g/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

\*Species cross-reactivity is determined by western blot.

\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.

**Recommended Antibody Dilutions:**

Western blotting 1:1000  
Immunoprecipitation 1:500

For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.

