

**#7543** Store at -20°C

# I $\kappa$ B $\alpha$ (L35A5) Mouse mAb (Amino-terminal Antigen) (Biotinylated)



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

Applications W Endogenous	Species Cross-Reactivity* H, M, R, Mk, B, Pg, Guinea Pig	Molecular Wt. 39 kDa	Isotype Mouse IgG1
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**Description:** This Cell Signaling Technology antibody is conjugated to biotin under optimal conditions. The biotinylated antibody is expected to exhibit the same species cross-reactivity as the unconjugated I $\kappa$ B $\alpha$  (L35A5) Mouse mAb (Amino-terminal Antigen) #4814.

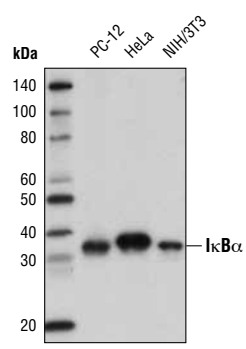
**Background:** The NF- $\kappa$ B/Rel transcription factors are present in the cytosol in an inactive state complexed with the inhibitory I $\kappa$ B proteins (1-3). Activation occurs via phosphorylation of I $\kappa$ B $\alpha$  at Ser32 and Ser36 followed by proteasome-mediated degradation that results in the release and nuclear translocation of active NF- $\kappa$ B (3-7). I $\kappa$ B $\alpha$  phosphorylation and resulting Rel-dependent transcription are activated by a highly diverse group of extracellular signals including inflammatory cytokines, growth factors, and chemokines. Kinases that phosphorylate I $\kappa$ B at these activating sites have been identified (8).

**Specificity/Sensitivity:** I $\kappa$ B $\alpha$  (L35A5) Mouse mAb (Amino-terminal Antigen) (Biotinylated) detects endogenous levels of total I $\kappa$ B $\alpha$  protein.

**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a GST-I $\kappa$ B $\alpha$  fusion protein corresponding to the amino terminus of human I $\kappa$ B $\alpha$  protein.

**Background References:**

- (1) Baeuerle, P.A. and Baltimore, D. (1988) *Science* 242, 540-6.
- (2) Beg, A.A. and Baldwin, A.S. (1993) *Genes Dev* 7, 2064-70.
- (3) Finco, T.S. et al. (1994) *Proc Natl Acad Sci USA* 91, 11884-8.
- (4) Brown, K. et al. (1995) *Science* 267, 1485-8.
- (5) Brockman, J.A. et al. (1995) *Mol Cell Biol* 15, 2809-18.
- (6) Traenckner, E.B. et al. (1995) *EMBO J* 14, 2876-83.
- (7) Chen, Z.J. et al. (1996) *Cell* 84, 853-62.
- (8) Karin, M. and Ben-Neriah, Y. (2000) *Annu Rev Immunol* 18, 621-63.



Western blot analysis of extracts from various cell lines using I $\kappa$ B $\alpha$  (L35A5) Mouse mAb (Amino-terminal Antigen) (Biotinylated). Streptavidin-HRP #3999 was used for detection.

**Entrez-Gene ID** #4792  
**Swiss-Prot Acc.** #P25963

**Storage:** Supplied in 136 mM NaCl, 2.6 mM KCl, 12 mM sodium phosphate (pH 7.4) dibasic, 2 mg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

**\*Species cross-reactivity other than human, mouse and monkey is determined by western blot using the unconjugated antibody.**

**Biotinylated antibodies are designed to be detected using streptavidin or anti-Biotin antibody conjugates.**

**Recommended Antibody Dilutions:**  
 Western blotting 1:1000

**For product 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 complementary products.**

**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.**

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**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide  
**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine  
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse AI—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.