Revision 1

#5209 Store at -20C

Phospho-IκBα (Ser32) (14D4) Rabbit mAb (Biotinylated)

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB	H M R Mk	Endogenous	40	Rabbit IgG	#P25963	4792

Product Usage Information

Application	Dilution
Western Blotting	1:1000

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 antibodies.

Specificity / Sensitivity

Phospho-IκBα (Ser32) (14D4) Rabbit mAb (Biotinylated) detects endogenous levels of IκBα only when phosphorylated at Ser32.

Species predicted to react based on 100% sequence homology:

Chicken, Bovine, Dog, Pig, Guinea Pig

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser32 of human IκBα.

Product 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 Phospho-IκBα (Ser32) (14D4) Rabbit mAb #2859.

MW (kDa) 40

Background

The NF-κB/Rel transcription factors are present in the cytosol in an inactive state complexed with the inhibitory IκB proteins (1-3). Activation occurs via phosphorylation of IκBα at Ser32 and Ser36 followed by proteasome-mediated degradation that results in the release and nuclear translocation of active NF-κB (3-7). IκBα 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 IκB at these activating sites have been identified (8).

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.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

WB: Western Blotting

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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 **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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Limited Uses