

#93726 Store at -20°C

IκB-ζ Antibody



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	M	Endogenous	75, 85	Rabbit	#Q9EST8	80859

Product Usage Information	Application Western Blotting	Dilution 1:1000
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.	
Specificity / Sensitivity	IκB-ζ Antibody recognizes endogenous levels of total mouse IκB-ζ protein.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly108 of mouse IκB-ζ protein. Antibodies are purified by protein A and peptide affinity chromatography.	
Background	<p>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).</p> <p>IκB-ζ (MAIL, INAP) is a unique IκB family member homologous to Bcl-3 and induced by IL-1 and Toll-like receptor (TLR) ligands (9-11). Like other family members, it contains carboxyl terminal ankyrin-repeats responsible for interaction with NF-κB, particularly p50. Unlike classical IκB family members (α, β, ε) which inhibit NF-κB translocation and are rapidly degraded upon cytokine treatment, IκB-ζ is cytokine-inducible and localized to the nucleus where it regulates NF-κB DNA binding and transactivation (12-14). Induction of IκB-ζ is required for TLR/IL-1 induction of a subset of NF-κB target genes, including IL-6 (15). However, the IκB-ζ can also inhibit transactivation of other targets, such as TNF-α (14,15).</p>	
Background References	<ol style="list-style-type: none"> 1. Baeuerle, P.A. and Baltimore, D. (1988) <i>Science</i> 242, 540-6. 2. Beg, A.A. and Baldwin, A.S. (1993) <i>Genes Dev</i> 7, 2064-70. 3. Finco, T.S. et al. (1994) <i>Proc Natl Acad Sci USA</i> 91, 11884-8. 4. Brown, K. et al. (1995) <i>Science</i> 267, 1485-8. 5. Brockman, J.A. et al. (1995) <i>Mol Cell Biol</i> 15, 2809-18. 6. Traenckner, E.B. et al. (1995) <i>EMBO J</i> 14, 2876-83. 7. Chen, Z.J. et al. (1996) <i>Cell</i> 84, 853-62. 8. Karin, M. and Ben-Neriah, Y. (2000) <i>Annu Rev Immunol</i> 18, 621-63. 9. Yamazaki, S. et al. (2001) <i>J Biol Chem</i> 276, 27657-62. 10. Kitamura, H. et al. (2000) <i>FEBS Lett</i> 485, 53-6. 11. Haruta, H. et al. (2001) <i>J Biol Chem</i> 276, 12485-8. 12. Matsuo, S. et al. (2007) <i>Biochem J</i> 405, 605-15. 13. Totzke, G. et al. (2006) <i>J Biol Chem</i> 281, 12645-54. 14. Motoyama, M. et al. (2005) <i>J Biol Chem</i> 280, 7444-51. 15. Yamamoto, M. et al. (2004) <i>Nature</i> 430, 218-22. 	

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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