

#9244 Store at -20°C

## IκB-ζ Antibody



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

| Applications: | Reactivity: | Sensitivity: | MW (kDa): | Source: | UniProt ID: | Entrez-Gene Id: |
|---------------|-------------|--------------|-----------|---------|-------------|-----------------|
| WB, IP        | H           | Endogenous   | 85        | Rabbit  | #Q9BYH8     | 64332           |

### Product Usage Information

#### Application

Western Blotting  
Immunoprecipitation

#### Dilution

1:1000  
1:50

### 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 detects endogenous levels of total human IκB-ζ protein and transfected levels of mouse IκB-ζ.

### Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues at the amino terminus of human IκB-ζ. Antibodies were purified by protein A and peptide affinity chromatography.

### 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). 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).

### Background References

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### 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 **IP:** Immunoprecipitation

**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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