Revision 3

Store at -20C

#76041

IκB-ζ (D4I7C) Rabbit mAb

Cell Signaling TECHNOLOGY®

Orders: 877-616-CELL (2355)
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cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, ChIP	M	Endogenous	75, 85	Rabbit IgG	#Q9EST8	80859

Product Usage Information

For optimal ChIP results, use 10 µl of antibody and 10 µg of chromatin (approximately 4 x 10^6 cells) per IP. This antibody has been validated using SimpleChIP® Enzymatic Chromatin IP Kits.

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50
Chromatin IP	1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

IκB-ζ (D4I7C) Rabbit mAb recognizes endogenous levels of total mouse IκB-ζ protein. This antibody has weak reactivity for rat and human. Product #93726 is preferred for western blot.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly108 of mouse IκB-ζ protein.

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

W: Western Blotting **IP:** Immunoprecipitation **ChIP:** Chromatin IP

Cross-Reactivity Key

M: Mouse

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