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#5733

## Phospho-NF- $\kappa$ B p65 (Ser536) (93H1) Rabbit mAb (PE Conjugate)

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

<b>Applications:</b> FC-FP	<b>Reactivity:</b> H M R Hm Mk Pg	<b>Sensitivity:</b> Endogenous	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #Q04206	<b>Entrez-Gene Id:</b> 5970
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<b>Product Usage Information</b>	<b>Application</b> Flow Cytometry (Fixed/Permeabilized)	<b>Dilution</b> 1:50
<b>Storage</b>	Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibodies. Protect from light. Do not freeze.	
<b>Specificity/Sensitivity</b>	Phospho-NF- $\kappa$ B p65 (Ser536) (93H1) Rabbit mAb (PE conjugate) detects NF- $\kappa$ B p65 only when phosphorylated at Ser536. It does not cross-react with the p50 subunit or other related proteins.	
<b>Species predicted to react based on 100% sequence homology</b>	Dog	
<b>Source / Purification</b>	Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser536 of human NF- $\kappa$ B p65.	
<b>Description</b>	This Cell Signaling Technology antibody is conjugated to phycoerythrin (PE) and tested in-house for direct flow cytometry analysis in human cells. The antibody is expected to exhibit the same species cross-reactivity as the unconjugated Phospho-NF- $\kappa$ B p65 (Ser536) (93H1) Rabbit mAb #3033.	
<b>Background</b>	Transcription factors of the nuclear factor $\kappa$ B (NF- $\kappa$ B)/Rel family play a pivotal role in inflammatory and immune responses (1,2). There are five family members in mammals: RelA, c-Rel, RelB, NF- $\kappa$ B1 (p105/p50), and NF- $\kappa$ B2 (p100/p52). Both p105 and p100 are proteolytically processed by the proteasome to produce p50 and p52, respectively. Rel proteins bind p50 and p52 to form dimeric complexes that bind DNA and regulate transcription. In unstimulated cells, NF- $\kappa$ B is sequestered in the cytoplasm by I $\kappa$ B inhibitory proteins (3-5). NF- $\kappa$ B-activating agents can induce the phosphorylation of I $\kappa$ B proteins, targeting them for rapid degradation through the ubiquitin-proteasome pathway and releasing NF- $\kappa$ B to enter the nucleus where it regulates gene expression (6-8). NIK and IKK $\alpha$ (IKK1) regulate the phosphorylation and processing of NF- $\kappa$ B2 (p100) to produce p52, which translocates to the nucleus (9-11).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Baeuerle, P.A. and Henkel, T. (1994) <i>Annu Rev Immunol</i> 12, 141-79.</li> <li>2. Baeuerle, P.A. and Baltimore, D. (1996) <i>Cell</i> 87, 13-20.</li> <li>3. Haskill, S. et al. (1991) <i>Cell</i> 65, 1281-9.</li> <li>4. Thompson, J.E. et al. (1995) <i>Cell</i> 80, 573-82.</li> <li>5. Whiteside, S.T. et al. (1997) <i>EMBO J</i> 16, 1413-26.</li> <li>6. Traenckner, E.B. et al. (1995) <i>EMBO J</i> 14, 2876-83.</li> <li>7. Scherer, D.C. et al. (1995) <i>Proc Natl Acad Sci USA</i> 92, 11259-63.</li> <li>8. Chen, Z.J. et al. (1996) <i>Cell</i> 84, 853-62.</li> <li>9. Senftleben, U. et al. (2001) <i>Science</i> 293, 1495-9.</li> <li>10. Coope, H.J. et al. (2002) <i>EMBO J</i> 21, 5375-85.</li> <li>11. Xiao, G. et al. (2001) <i>Mol Cell</i> 7, 401-9.</li> </ol>	

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

**Applications Key** **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

**Cross-Reactivity Key** **H:** Human **M:** Mouse **R:** Rat **Hm:** Hamster **Mk:** Monkey **Pg:** Pig

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