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## Phospho-IKK $\alpha$ / $\beta$ (Ser176/180) (16A6) Rabbit mAb (PE Conjugate)



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<b>Applications:</b> FC-FP	<b>Reactivity:</b> H	<b>Sensitivity:</b> Endogenous	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #O15111	<b>Entrez-Gene Id:</b> 1147
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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-IKK $\alpha$ / $\beta$ (Ser176/180) (16A6) Rabbit mAb (PE Conjugate) detects IKK $\alpha$ only when phosphorylated at Ser176/180 and IKK $\beta$ only when phosphorylated at Ser177/181.	
<b>Species predicted to react based on 100% sequence homology:</b>	Bovine	
<b>Source / Purification</b>	Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser176/180 of human IKK $\alpha$ protein.	
<b>Product 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-IKK $\alpha$ / $\beta$ (Ser176/180) (16A6) Rabbit mAb #2697.	
<b>Background</b>	The NF- $\kappa$ B/Rel transcription factors are present in the cytosol in an inactive state, complexed with the inhibitory I $\kappa$ B proteins (1-3). Most agents that activate NF- $\kappa$ B do so through a common pathway based on phosphorylation-induced, proteasome-mediated degradation of I $\kappa$ B (3-7). The key regulatory step in this pathway involves activation of a high molecular weight I $\kappa$ B kinase (IKK) complex whose catalysis is generally carried out by three tightly associated IKK subunits. IKK $\alpha$ and IKK $\beta$ serve as the catalytic subunits of the kinase and IKK $\gamma$ serves as the regulatory subunit (8,9). Activation of IKK depends upon phosphorylation at Ser177 and Ser181 in the activation loop of IKK $\beta$ (Ser176 and Ser180 in IKK $\alpha$ ), which causes conformational changes, resulting in kinase activation (10-13).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Baeuerle, P.A. and Baltimore, D. (1988) <i>Science</i> 242, 540-6.</li> <li>2. Beg, A.A. and Baldwin, A.S. (1993) <i>Genes Dev</i> 7, 2064-70.</li> <li>3. Finco, T.S. et al. (1994) <i>Proc Natl Acad Sci USA</i> 91, 11884-8.</li> <li>4. Brown, K. et al. (1995) <i>Science</i> 267, 1485-8.</li> <li>5. Brockman, J.A. et al. (1995) <i>Mol Cell Biol</i> 15, 2809-18.</li> <li>6. Traenckner, E.B. et al. (1995) <i>EMBO J</i> 14, 2876-83.</li> <li>7. Chen, Z.J. et al. (1996) <i>Cell</i> 84, 853-62.</li> <li>8. Zandi, E. et al. (1997) <i>Cell</i> 91, 243-52.</li> <li>9. Karin, M. (1999) <i>Oncogene</i> 18, 6867-74.</li> <li>10. DiDonato, J.A. et al. (1997) <i>Nature</i> 388, 548-54.</li> <li>11. Mercurio, F. et al. (1997) <i>Science</i> 278, 860-6.</li> <li>12. Johnson, L.N. et al. (1996) <i>Cell</i> 85, 149-58.</li> <li>13. Delhase, M. et al. (1999) <i>Science</i> 284, 309-13.</li> </ol>	

<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
<b>Applications Key</b>	<b>FC-FP:</b> Flow Cytometry (Fixed/Permeabilized)
<b>Cross-Reactivity Key</b>	

**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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