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## c-Fos (9F6) Rabbit mAb (PE Conjugate)



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<b>Applications:</b> FC-FP	<b>Reactivity:</b> H M R	<b>Sensitivity:</b> Endogenous	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #P01100	<b>Entrez-Gene Id:</b> 2353
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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>	c-Fos (9F6) Rabbit mAb (PE Conjugate) recognizes endogenous levels of total c-Fos protein. The antibody does not cross-react with other Fos proteins, including FosB, FRA1, or FRA2.	
<b>Species predicted to react based on 100% sequence homology:</b>	Hamster, Bovine, Pig	
<b>Source / Purification</b>	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human c-Fos 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 c-Fos (9F6) Rabbit mAb #2250.	
<b>Background</b>	<p>The Fos family of nuclear oncogenes includes c-Fos, FosB, Fos-related antigen 1 (FRA1), and Fos-related antigen 2 (FRA2) (1). While most Fos proteins exist as a single isoform, the FosB protein exists as two isoforms: full-length FosB and a shorter form, FosB2 (Delta FosB), which lacks the carboxy-terminal 101 amino acids (1-3). The expression of Fos proteins is rapidly and transiently induced by a variety of extracellular stimuli, including growth factors, cytokines, neurotransmitters, polypeptide hormones, and stress. Fos proteins dimerize with Jun proteins (c-Jun, JunB, and JunD) to form Activator Protein-1 (AP-1), a transcription factor that binds to TRE/AP-1 elements and activates transcription. Fos and Jun proteins contain the leucine-zipper motif that mediates dimerization and an adjacent basic domain that binds to DNA. The various Fos/Jun heterodimers differ in their ability to transactivate AP-1 dependent genes. In addition to increased expression, phosphorylation of Fos proteins by Erk kinases in response to extracellular stimuli may further increase transcriptional activity (4-6). Phosphorylation of c-Fos at Ser32 and Thr232 by Erk5 increases protein stability and nuclear localization (5). Phosphorylation of FRA1 at Ser252 and Ser265 by Erk1/2 increases protein stability and leads to overexpression of FRA1 in cancer cells (6). Following growth factor stimulation, expression of FosB and c-Fos in quiescent fibroblasts is immediate, but very short-lived, with protein levels dissipating after several hours (7). FRA1 and FRA2 expression persists longer, and appreciable levels can be detected in asynchronously growing cells (8). Deregulated expression of c-Fos, FosB, or FRA2 can result in neoplastic cellular transformation; however, Delta FosB lacks the ability to transform cells (2,3).</p>	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Tulchinsky, E. (2000) <i>Histol Histopathol</i> 15, 921-8.</li> <li>2. Dobrazanski, P. et al. (1991) <i>Mol Cell Biol</i> 11, 5470-8.</li> <li>3. Nakabeppu, Y. and Nathans, D. (1991) <i>Cell</i> 64, 751-9.</li> <li>4. Rosenberger, S.F. et al. (1999) <i>J Biol Chem</i> 274, 1124-30.</li> <li>5. Sasaki, T. et al. (2006) <i>Mol Cell</i> 24, 63-75.</li> <li>6. Basbous, J. et al. (2007) <i>Mol Cell Biol</i> 27, 3936-50.</li> <li>7. Kovary, K. and Bravo, R. (1991) <i>Mol Cell Biol</i> 11, 2451-9.</li> <li>8. Kovary, K. and Bravo, R. (1992) <i>Mol Cell Biol</i> 12, 5015-23.</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 **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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