

#74315 Store at -20°C

SP1 (D4C3) Rabbit mAb (PE Conjugate)



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Applications: FC-FP	Reactivity: H Mk	Sensitivity: Endogenous	Source/Isotype: Rabbit IgG	UniProt ID: #P08047	Entrez-Gene Id: 6667
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Product Usage Information	Application Flow Cytometry (Fixed/Permeabilized)	Dilution 1:50
Storage	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 antibody. Protect from light. Do not freeze.	
Specificity / Sensitivity	SP1 (D4C3) Rabbit mAb (PE Conjugate) recognizes endogenous levels of total SP1 protein. It is predicted to detect all three known isoforms.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro593 of human SP1 protein (Isoform 1).	
Product Description	This Cell Signaling Technology antibody is conjugated to phycoerythrin (PE) and tested in-house for direct flow cytometry analysis in human cells. This antibody is expected to exhibit the same species cross-reactivity as the unconjugated SP1 (D4C3) Rabbit mAb #9389.	
Background	Specificity protein 1 (SP1) is a ubiquitously expressed transcription factor belonging to the family of C2H2-type zinc finger containing DNA-binding proteins. SP1 binds GC-rich motifs with high affinity and regulates the expression of numerous mammalian genes (1,2). It interacts with many other transcription factors, such as c-Myc, EGR1, and Stat1, and with basal transcription machinery components. SP1 interacts with chromatin-modifying factors, such as histone deacetylases (HDACs) and p300 in chromatin remodeling. Transcriptional activity and stability of SP1 are regulated by post-translational modification, including phosphorylation, acetylation, ubiquitination, and glycosylation (3). Glycosylation of SP1 following insulin treatment leads to increased nuclear localization, while glucagon treatment increases cytoplasmic SP1 levels (4-6). Investigators have found high levels of SP1 in patients with Alzheimer's disease (7).	
Background References	<ol style="list-style-type: none"> 1. Kadonaga, J.T. et al. (1987) <i>Cell</i> 51, 1079-90. 2. Song, J. et al. (2003) <i>Int J Mol Med</i> 11, 547-53. 3. Tan, N.Y. and Khachigian, L.M. (2009) <i>Mol Cell Biol</i> 29, 2483-8. 4. Majumdar, G. et al. (2003) <i>Am J Physiol Endocrinol Metab</i> 285, E584-91. 5. Majumdar, G. et al. (2006) <i>J Biol Chem</i> 281, 3642-50. 6. Solomon, S.S. et al. (2008) <i>Life Sci</i> 83, 305-12. 7. Citron, B.A. et al. (2008) <i>J Neurosci Res</i> 86, 2499-504. 	

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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