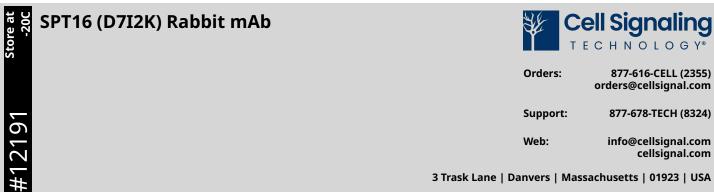
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Applications: W, ChIP	Reactivity: H M R Mk	Sensitivity: Endogenous	MW (kDa): 140	Source/Isotype: Rabbit IgG	UniProt ID: #Q9Y5B9	Entrez-Gene Id: 11198
Product Usage Information		For optimal ChIP results, use 10 μl of antibody and 10 μg of chromatin (approximately 4 x 10 ⁶ cells) per IP. This antibody has been validated using SimpleChIP [®] Enzymatic Chromatin IP Kits.				
		Application Western Blotting Chromatin IP			Dilution 1:1000 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		SPT16 (D7I2K) Rabbit mAb recognizes endogenous levels of total SPT16 protein.				
Species predicted to react based on 100% sequence homology		Hamster, Xenopus, Zebrafish, Bovine, Dog, Horse, Goat, Guinea Pig				
Source / Purification		Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu662 of human SPT16 protein.				
Background	ckgroundSuppressor of Ty-16 (SPT16) and structure-specific recognition protein-1 (SSRP1) are subunits of the facilitates chromatin transcription (FACT) complex that is essential for transcription elongation (1,2). FACT facilitates RNA polymerase-dependent transcription of chromatin templates by destabilizing th nucleosomes within the open reading frames of active genes (3-5). FACT destabilizes the nucleosom which would otherwise act as barriers to RNA polymerase transcription activity, by disrupting histon histone and histone-DNA contacts that lead to the eviction of the histone H2A-H2B dimer (2,3,6). FACT may also function as a histone chaperone to reassemble nucleosomes after RNA polymerase passag (7). In addition to transcription, FACT activity has been shown to have a role in DNA replication in yea and in DNA repair by contributing to the activation of p53 by CK2 and by facilitating histone H2AX-H2 exchange upon DNA damage (8,9).					
Background References		 Winkler, D.D. and Luger, K. (2011) <i>J Biol Chem</i> 286, 18369-74. Orphanides, G. et al. (1999) <i>Nature</i> 400, 284-8. Orphanides, G. et al. (1998) <i>Cell</i> 92, 105-16. Birch, J.L. et al. (2009) <i>EMBO J</i> 28, 854-65. Orphanides, G. and Reinberg, D. (2000) <i>Nature</i> 407, 471-5. Keller, D.M. and Lu, H. (2002) <i>J Biol Chem</i> 277, 50206-13. Belotserkovskaya, R. et al. (2003) <i>Science</i> 301, 1090-3. Schlesinger, M.B. and Formosa, T. (2000) <i>Genetics</i> 155, 1593-606. Heo, K. et al. (2008) <i>Mol Cell</i> 30, 86-97. 				
Species Reactivit	ty	Species reactivity is de	termined by testing	g in at least one approve	ed application (e.g.,	western blot).
Western Blot Buffer		IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.				
Applications Key		W: Western Blotting ChIP: Chromatin IP				
Cross-Reactivity Key		H: Human M: Mouse R: Rat Mk: Monkey				
Trademarks and Patents		Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc. SimpleChIP is a registered trademark of Cell Signaling Technology, Inc.				

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