Phospho-SATB1 (Ser47) Antibody



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

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Product Usage InformationApplication Western BlottingDilution 1:1000StorageSupplied in 10 mM sodium HEPES (PJ 7.5), 150 mM NaCl, 100 µJrml BSA and 50% glycerol. Store at - 20°C. Do not aliquot the antibody.Specificity/SensitivityPhospho-SATB1 (Ser47) Antibody detects endogenous levels of SATB1 protein only when phosphorylated on Ser47.Species predicted to react boxmool 90% sequence homologyMonkey, Bovine, HorseSource / PurificationPolyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to Ser47 of the human SATB1 protein. Antibodies are purified by protein A and peptide affinity chromatography.BackgroundSpecial AT-rich binding protein (SATB1) functions as both a global chromatin organizer and a gene regulate global chromatin encodeling proteins that contribute to specific gree activation and regulate global chromatin activation (MAS) in DNAC to the nuclear matrix (1-3). In addition, SATB1 recruits multiple chromatin encodeling proteins that contribute to specific gree activation and represeint interaction with HDAC1 and PCAF. While unphosphorylated SATB1 binds to PCAF. phosphorylated SATB1 preferentially binds to DAC1 (B). Activation of SATB1 on LysT3 6b PCAF impairs its DNA binding activity, thereby removing SATB1 from gene promocers (b). SATB1 in a specessed predominantly in thymocytes and is involved in gene regulation during T cell activation (1). SATB1 is as pressed predominantly in thymocytes and is involved in growth and metastistic breast cancer (2). In a mouse model system, RNA- mediated knockdown of SATB1 in non-metastatic breast cancer (2). In a mouse model system, RNA- mediated knockdown of SATB1 in non-metastatic breast cancer (2). In an use stable, preduction (1). SATB1 is as pressed predominantly in th	Applications: W	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 100	Source/Isotype: Rabbit	UniProt ID: #Q01826	Entrez-Gene Id: 6304
StorageSupplied in 10 mM sodium HEPS (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at - 20°C. Do not aliquot the antibody.Specificity/SensitivityPhospho-SATB1 (Ser47) Antibody detects endogenous levels of SATB1 protein only when phosphorylated on Ser47.Species predicted to react based on 100% sequence homologyMonkey, Bovine, HorseSource / PurificationPolyclonal antibodies are produced by immunizing animals with a synthetic phosphopptide corresponding to Ser47 of the human SATB1 protein. Antibodies are purified by protein A and peptide affinity chromatography.BackgroundSpecial AT-rich binding protein 1 (SATB1) functions as both a global chromatin organizer and a gene- specific transcription factor (1). SATB1 cooperates with prometion/ticl leukemia protein (PML) to regulate global chromatin architecture by organizing chromatin into distinct loops via periodic anchoring of matrix attachment regions (MAB3) in DNA to the nuclear matrix (1-3). In addition, SATB1 n recruits multiple chromatin remodeling enzymes ACF and PCAF. While unphosphorylated SATB1 bids to PCAF. Thispshorylated SATB1 phosphorylated SATB1 phosphorylated SATB1 phosphorylated on SATB1 on US135 by PCAF impairs its DNA binding activity, thereby removing SATB1 from gene promoters (6). SATB1 is sepressed predominanty in thromocytes and is involved in gene regulation during real activation (1). SATB1 is also expressed in metastatic breast cancer (2). In a mouse model system, RNAi- mediated knockdown of SATB1 no metastatic breast cancer cells and is a potential prognestic articity is detendinative, while ucphosphorylation detextures is not known, Please with Phosphorylated SCR (2). Name MAB Mediated knockdown of SATB1 no metastatic breast cancer cells and is a potential prognessic umarker et al. (2007) <i>Nar Call Biols</i> , 45-56. 4. Y	Product Usage Information		Application Western Blotting			Dilution 1:1000	
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Species predicted to react based on 100% sequence homologyMonkey, Bovine, HorseSource / PurificationPolyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to Ser47 of the human SATB1 protein. Antibodies are purified by protein A and peptide affinity chromatography.BackgroundSpecial AT-ich binding protein 1 (SATB1) functions as both a global chromatin organizer and a gene- specific transcription factor (1). SATB1 cooperates with promyelocytic leukemia protein (PML) to regulate global chromatin architecture by organizing chromatin into distinct loops via periodic anchoring of matrix attachment regions (MARs) in DNA to the nuclear matrix (1-3). In addition, SATB1 recruits multiple chromatin-remodeling proteins that contribute to specific gene activation and repression, including the chromatin remodeling proteins that contribute to specific gene activation of SATB1 binds to PCAF, phosphorylated SATB1 preferentially binds to HOAC1 (6). ActeVisition of SATB1 on Ser135 by protein kinase C regulates its interaction with HOAC1 and PCAF. While unphosphorylated SATB1 is expressed predominantly in thymocytes and is involved in gene regulation of SATB1 on 	Specificity/Sensi	itivity	Phospho-SATB1 (Ser47) Antibody detects endogenous levels of SATB1 protein only when phosphorylated on Ser47.				hen
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BackgroundSpecial AT-rich binding protein 1 (SATB1) functions as both a global chromatin organizer and a gene- specific transcription factor (1), SATB1 cooperates with promyelocytic leukemia protein (PML) to regulate global chromatin regions (MARS) in DNA to the nuclear matrix (1-3). In addition, SATB1 recourse multiple chromatin remodeling proteins that contribute to specific gene activation and repression, including the chromatin remodeling proteins that contribute to specific gene activation and repression, including the chromatin remodeling anzymes ACF and ISWI, the histone deacetylase HDAC1, and the histone acetyltransferases PCAF and p300/CBP (4-6). Phosphorylation of SATB1 on Ser185 by protein kinase C regulates its interaction with HDAC1 and PCAF. While unphosphorylated SATB1 binds to PCAF, phosphorylated SATB1 preferentially binds to HDAC1 (6). Acetylation of SATB1 on Ser185 by protein kinase C regulates its interaction with HDAC1 and PCAF. While unphosphorylated 	Source / Purifica	ntion	Polyclonal antibodies corresponding to Ser4 affinity chromatograp	are produced by im I7 of the human SA ⁻ hy.	munizing animals with a FB1 protein. Antibodies a	a synthetic phospho are purified by prot	opeptide ein A and peptide
Background References1. Galande, S. et al. (2007) Curr Opin Genet Dev 17, 408-14. 2. Cai, S. et al. (2006) Nat Genet 38, 1278-88. 3. Kumar, P.P. et al. (2007) Nat Cell Biol 9, 45-56. 4. Yasui, D. et al. (2002) Nature 419, 641-5. 5. Kumar, P.P. et al. (2005) Mol Cell Biol 25, 1620-33. 6. Pavan Kumar, P. et al. (2006) Mol Cell 22, 231-43. 7. Han, H.J. et al. (2008) Nature 452, 187-93.Species ReactivitySpecies reactivity is determined by testing in at least one approved application (e.g., western blot).Western Blot BufferIMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.Applications KeyW: Western Blotting	Background		Special AT-rich binding specific transcription f regulate global chrom anchoring of matrix at recruits multiple chron repression, including t HDAC1, and the histor Ser185 by protein kina SATB1 binds to PCAF, p Lys136 by PCAF impain SATB1 is expressed pri activation (1). SATB1 is marker and therapeut mediated knockdown while ectopic expressi Phospho-SATB1 (Ser47) (CST) using PhosphoSo Ser47 was discovered not known. Please visi www.phosphosite.org	g protein 1 (SATB1) f actor (1). SATB1 cod latin architecture by ttachment regions (matin-remodeling p the chromatin remo eacetyltransferase ase C regulates its in phosphorylated SAT phosphorylated SAT s its DNA binding a edominantly in thyr also expressed in n tic target for metast of SATB1 reversed for on of SATB1 reversed for on of SATB1 in non- 7) Antibody is direct can [®] , CST's LC-MS/N using an Akt substr t PhosphoSitePlus ^m for more informati	functions as both a glob operates with promyeloc organizing chromatin in MARs) in DNA to the nuc roteins that contribute to deling enzymes ACF and es PCAF and p300/CBP (4 nteraction with HDAC1 a TB1 preferentially binds to activity, thereby removing nocytes and is involved metastatic breast cancer tatic breast cancer (7). In sumorigenesis by inhibit metastatic breast cancee ed at a site that was iden AS platform for modifica- rate antibody. The function (, CST's modification site on.	al chromatin organ ytic leukemia prote nto distinct loops vi clear matrix (1-3). Ir o specific gene acti d ISWI, the histone -6). Phosphorylatio nd PCAF. While unp to HDAC1 (6). Acetyl g SATB1 from gene regulation of cells and is a poter a mouse model sy ing tumor growth a r cells produced inv ntified at Cell Signa tion site discovery. on of this phosphor knowledgebase, at	izer and a gene- ein (PML) to ia periodic in addition, SATB1 ivation and deacetylase on of SATB1 on obosphorylated lation of SATB1 on promoters (6). during T cell ntial prognostic stem, RNAi- and metastasis, vasive tumors. ling Technology Phosphorylation at rylation event is t
Species ReactivitySpecies reactivity is determined by testing in at least one approved application (e.g., western blot).Western Blot BufferIMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.Applications KeyW: Western Blotting	Background Ref	erences	1. Galande, S. et al. (20 2. Cai, S. et al. (2006) A 3. Kumar, P.P. et al. (200 4. Yasui, D. et al. (2002 5. Kumar, P.P. et al. (200 6. Pavan Kumar, P. et a 7. Han, H.J. et al. (2008	207) <i>Curr Opin Gen</i> . Nat Genet 38, 1278- 207) Nat Cell Biol 9, 4 20 Nature 419, 641-5 205) Mol Cell Biol 25 206) Mol Cell 22 2006) Mol Cell 22 20 Nature 452, 187-9	<i>et Dev</i> 17, 408-14. 88. 45-56. , 1620-33. 2, 231-43. 13.		
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Applications Key W: Western Blotting	Western Blot Bu	ffer	IMPORTANT: For west TBS, 0.1% Tween® 20	ern blots, incubate at 4°C with gentle s	membrane with diluted haking, overnight.	primary antibody ir	n 5% w/v BSA, 1X
	Applications Key	/	W: Western Blotting				

Cross-Reactivity Key	H: Human M: Mouse R: Rat			
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