

ARG51691 anti-SMC1 phospho (Ser957) antibody

Package: 100 µl, 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes SMC1 phospho (Ser957)
Tested Reactivity	Hu, Ms
Tested Application	IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	SMC1
Species	Human
Immunogen	Peptide sequence around phosphorylation site of serine 957 (G-S-S(p)-Q-G) derived from Human SMC1.
Conjugation	Un-conjugated
Alternate Names	CDLS2; SMC-1A; Structural maintenance of chromosomes protein 1A; SMC1alpha; SMC1; DXS423E; Sb1.8; SMC-1-alpha; SMC1L1; SB1.8; SMCB; SMC protein 1A

Application Instructions

Application table	Application	Dilution
	IHC-P	1:50 - 1:100
	WB	1:500 - 1:1000

Application Note * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

Form	Liquid
Purification	Antibodies were produced by immunizing rabbits with KLH-conjugated synthetic phosphopeptide. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. In addition, non-phospho specific antibodies were removed by chromatography using non-phosphopeptide.
Buffer	PBS (without Mg ²⁺ and Ca ²⁺ , pH 7.4), 150mM NaCl, 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

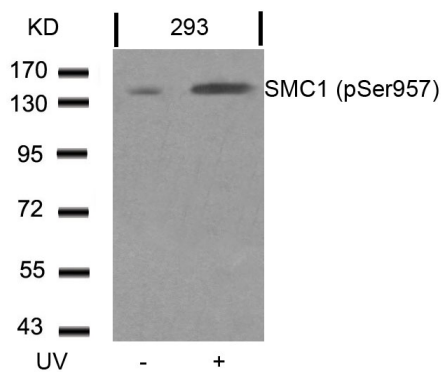
Note

For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

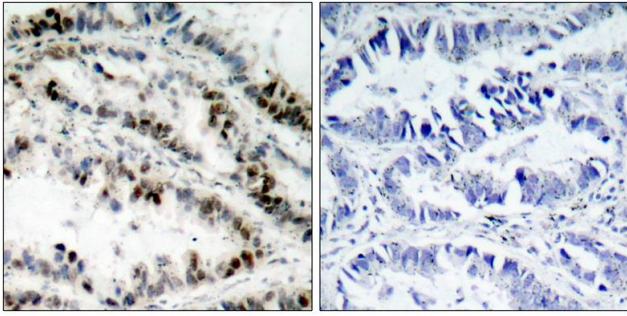
Database links	GeneID: 24061 Mouse GeneID: 8243 Human Swiss-port # Q14683 Human Swiss-port # Q9CU62 Mouse
Gene Symbol	SMC1A
Gene Full Name	structural maintenance of chromosomes 1A
Background	Involved in chromosome cohesion during cell cycle and in DNA repair. Central component of cohesin complex. The cohesin complex is required for the cohesion of sister chromatids after DNA replication. The cohesin complex apparently forms a large proteinaceous ring within which sister chromatids can be trapped. At anaphase, the complex is cleaved and dissociates from chromatin, allowing sister chromatids to segregate. The cohesin complex may also play a role in spindle pole assembly during mitosis. Involved in DNA repair via its interaction with BRCA1 and its related phosphorylation by ATM, or via its phosphorylation by ATR. Works as a downstream effector both in the ATM/NBS1 branch and in the ATR/MSH2 branch of S-phase checkpoint.
Function	Involved in chromosome cohesion during cell cycle and in DNA repair. Central component of cohesin complex. The cohesin complex is required for the cohesion of sister chromatids after DNA replication. The cohesin complex apparently forms a large proteinaceous ring within which sister chromatids can be trapped. At anaphase, the complex is cleaved and dissociates from chromatin, allowing sister chromatids to segregate. The cohesin complex may also play a role in spindle pole assembly during mitosis. Involved in DNA repair via its interaction with BRCA1 and its related phosphorylation by ATM, or via its phosphorylation by ATR. Works as a downstream effector both in the ATM/NBS1 branch and in the ATR/MSH2 branch of S-phase checkpoint. [UniProt]
Research Area	Cell Biology and Cellular Response antibody
Calculated Mw	143 kDa
PTM	Phosphorylated by ATM upon ionizing radiation in a NBS1-dependent manner. Phosphorylated by ATR upon DNA methylation in a MSH2/MSH6-dependent manner. Phosphorylation of Ser-957 and Ser-966 activates it and is required for S-phase checkpoint activation.

Images



ARG51691 anti-SMC1 phospho (Ser957) antibody WB image

Western blot: Extracts from 293 cells untreated or treated with UV stained with ARG51691 anti-SMC1 phospho (Ser957) antibody.



ARG51691 anti-SMC1 phospho (Ser957) antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human lung carcinoma tissue stained with ARG51691 anti-SMC1 phospho (Ser957) antibody (left) or the same antibody preincubated with blocking peptide (right).