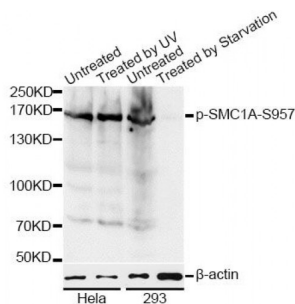
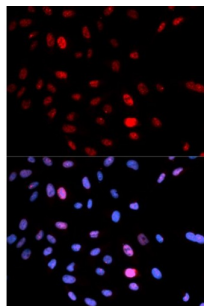


## SMC1A (pS957) Antibody

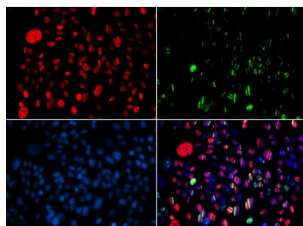
Catalogue No.: abx000162



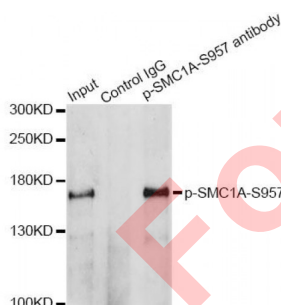
Western blot analysis of extracts of HeLa and 293 cells, using Phospho-SMC1A-S957 antibody (abx000162) at 1/1000 dilution. HeLa cells were treated by UV for 15-30 minutes. 293 cells were treated by serum-starvation overnight.



Immunofluorescence analysis of U2OS cells using Phospho-SMC1A-S957 antibody (abx000162). Blue: DAPI for nuclear staining.



Immunofluorescence analysis of GFP-RNF168 transgenic U2OS cells using Phospho-SMC1A-S957 antibody (abx000162). Green: GFP-RNF168 fusion protein expression for DNA damage marker. Blue: DAPI for nuclear staining. RNF168(GFP) can be used to mark cells damaged by UV-A laser for they always gather around DNA damage region.



Immunoprecipitation analysis of 200  $\mu$ g extracts of HeLa cells treated by UV using 2.5  $\mu$ g Phospho-SMC1A-S957 antibody (abx000162). Western blot was performed from the immunoprecipitate using Phospho-SMC1A-S957 antibody (abx000162) at a dilution of 1/1000.

SMC1A (pS957) Antibody is a Rabbit Polyclonal antibody against SMC1A (pS957). Proper cohesion of sister chromatids is a prerequisite for the correct segregation of chromosomes during cell division. The cohesin multiprotein complex is required for sister chromatid cohesion. This complex is composed partly of two structural maintenance of chromosomes (SMC) proteins, SMC3 and either SMC1B or the protein encoded by this gene. Most of the cohesin complexes dissociate from the chromosomes before mitosis, although those complexes at the kinetochore remain. Therefore, the encoded protein is thought to be an important part of functional kinetochores. In addition, this protein interacts with BRCA1 and is phosphorylated by ATM, indicating a potential role for this protein in DNA repair. This gene, which belongs to the SMC gene family, is located in an area of the X-chromosome that escapes X inactivation. Mutations in this gene result in Cornelia de Lange syndrome. Alternative splicing results in multiple transcript variants encoding different isoforms.

# Datasheet

Version: 2.0.0  
Revision date: 06 Jun 2024



Target:	SMC1A (pS957)
Clonality:	Polyclonal
Reactivity:	Human, Mouse, Rat
Tested Applications:	WB, IHC, IP
Host:	Rabbit
Recommended dilutions:	WB: 1/500 - 1/2000, IHC-P: 1/50 - 1/200, IP: 0.5-4 µg/200-400 µg whole cell extracts. Not tested in IHC-F. Optimal dilutions/concentrations should be determined by the end user.
Conjugation:	Unconjugated
Immunogen:	A synthetic phosphorylated peptide around S957 of human SMC1A.
Isotype:	IgG
Form:	Liquid
Purification:	Purified by affinity chromatography.
Storage:	Aliquot and store at -20°C. Avoid repeated freeze/thaw cycles.
UniProt Primary AC:	Q14683 ( <a href="#">UniProt</a> , <a href="#">ExPASy</a> )
Gene Symbol:	SMC1A
GeneID:	<a href="#">8243</a>
NCBI Accession:	NP_006297.2
KEGG:	hsa:8243
String:	<a href="#">9606.ENSP00000323421</a>
Molecular Weight:	Calculated MW: 143 kDa Observed MW: 160 kDa
Buffer:	PBS, pH 7.3, containing 0.02% sodium azide, 50% glycerol.
Concentration:	> 0.2 mg/ml
Note:	This product is for research use only.