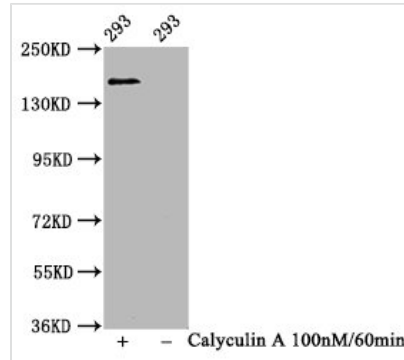




Phospho-SMC1A (S957) Recombinant Monoclonal Antibody

Product Code	CSB-RA614804A957phHU
Abbreviation	Structural maintenance of chromosomes protein 1A
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	Q14683
Immunogen	A synthesized peptide derived from Human Phospho-SMC1A (S957)
Species Reactivity	Human
Tested Applications	ELISA, WB; Recommended dilution: WB:1:500-1:5000
Relevance	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.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Alias	Structural maintenance of chromosomes protein 1A, SMC protein 1A, SMC-1-alpha, Sb1.8, SMC1A, DXS423E, KIAA0178, SB1.8, SMC1, SMC1L1
Immunogen Species	Homo sapiens (Human)
Research Area	Cell Biology
Gene Names	SMC1A
Clone No.	1F9
Image	



Western Blot

Positive WB detected in 293 whole cell lysate (treated with Calyculin A or not)

All lanes Phospho-SMC1A antibody at 1.11 µg/ml

Secondary

Goat polyclonal to rabbit IgG at 1/50000 dilution

Predicted band size: 160 KDa

Observed band size: 160 KDa

Description

CUSABIO put the phospho-SMC1A (S957) monoclonal antibody DNA sequence into the plasmid, which was subsequently transfected into the cell line for expression. Immunizing mice with the phosphopeptide corresponding to residues surrounding Ser 957 of human SMC1A produced the phospho-SMC1A (S957) monoclonal antibody. The recombinant phospho-SMC1A (S957) monoclonal antibody was obtained after the product was purified using affinity chromatography. It's a rabbit IgG antibody. This phospho-SMC1A (S957) antibody has undergone ELISA and WB quality testing. It can bind to the pS957-SMC1A in human samples.

SMC1A is a subunit of the evolutionarily conserved four-subunit complex cohesion. SMC1A plays an important role in genome integrity, chromosomal function, gene control, and double-stranded DNA repair, among other functions. It is phosphorylated by both ATR and ATM protein kinases and is involved in the G2/M checkpoint. SMC1A has been linked to the formation of tumors in various types of human malignancies. SMC1A promotes prostate cancer development and migration in vitro and in vivo, according to the finding of Xiu-Wu Pan et al.