

For Research Use Only

# CoraLite®594-conjugated SMC1A Monoclonal antibody



Catalog Number:CL594-66987

## Basic Information

<b>Catalog Number:</b> CL594-66987	<b>GenBank Accession Number:</b> BC112127	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ul , Concentration: 1000 µg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 8243	<b>CloneNo.:</b> 1A5D2
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> Q14683	<b>Recommended Dilutions:</b> IF-P 1:50-1:500
<b>Isotype:</b> IgG2b	<b>Full Name:</b> structural maintenance of chromosomes 1A	<b>Excitation/Emission maxima wavelengths:</b> 588 nm / 604 nm
<b>Immunogen Catalog Number:</b> AG17257	<b>Calculated MW:</b> 1233 aa, 143 kDa	
	<b>Observed MW:</b> 150 kDa	

## Applications

<b>Tested Applications:</b> IF	<b>Positive Controls:</b> IF-P : human colon cancer tissue,
<b>Species Specificity:</b> Human, mouse, rat	

## Background Information

Structural maintenance of chromosomes protein 1A (SMC1A) is involved in chromosome cohesion during cell cycle and in DNA repair. It is a central component of cohesin complex which 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.

## Storage

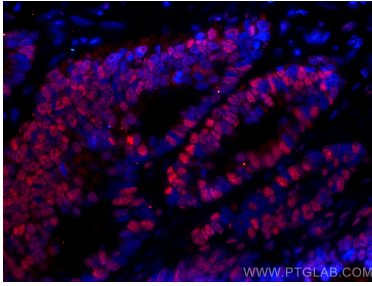
**Storage:**  
Store at -20°C. Avoid exposure to light.  
**Storage Buffer:**  
PBS with 50% Glycerol, 0.05% Proclin300, 0.5% BSA, pH 7.3.  
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
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## Selected Validation Data



Immunofluorescent analysis of (4% PFA) fixed human colon cancer tissue using CoraLite®594 SMC1A antibody (CL594-66987, Clone: 1A5D2 ) at dilution of 1:200.