

For Research Use Only

# SMC1A Monoclonal antibody, PBS Only

Catalog Number: 66987-1-PBS



## Basic Information

Catalog Number:

66987-1-PBS

Size:

100ug, Concentration: 1mg/ml by Nanodrop;

Source:

Mouse

Isotype:

IgG2b

Immunogen Catalog Number:

AG17257

GenBank Accession Number:

BC112127

GeneID (NCBI):

8243

UNIPROT ID:

Q14683

Full Name:

structural maintenance of chromosomes 1A

Calculated MW:

1233 aa, 143 kDa

Observed MW:

150 kDa

Purification Method:

Protein A purification

CloneNo.:

1A5D2

## Applications

Tested Applications:

WB, IHC, FC (Intra), ELISA

Species Specificity:

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 -80°C.

Storage Buffer:

PBS Only

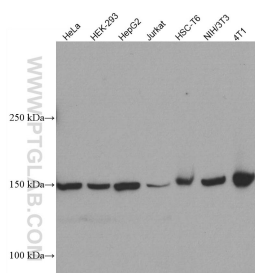
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

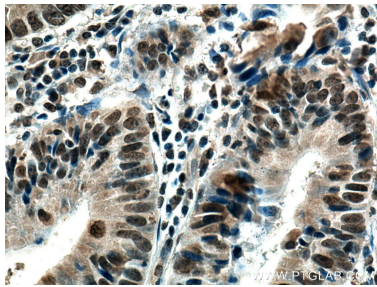
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

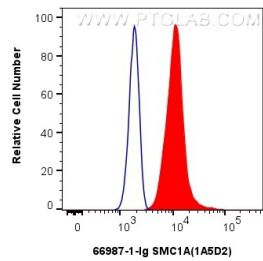
Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 66987-1-Ig (SMC1A antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 66987-1-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 66987-1-Ig (SMC1A antibody) at dilution of 1:300 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66987-1-PBS in a different storage buffer formulation.



1x10<sup>6</sup> HeLa cells were intracellularly stained with 0.25 ug SMC1A Monoclonal antibody (66987-1-Ig, Clone:1A5D2) and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L) (SA00013-1)(red), or 0.25 ug Mouse IgG2b isotype control Mouse McAb (66360-3-Ig, Clone: 11B8C4) (blue). Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011). This data was developed using the same antibody clone with 66987-1-PBS in a different storage buffer