

For Research Use Only

SMC1A Polyclonal antibody

Catalog Number: 21695-1-AP **3 Publications**



Basic Information

Catalog Number: 21695-1-AP	GenBank Accession Number: BC112127	Purification Method: Antigen Affinity purified
Size: 150ul , Concentration: 650 µg/ml by Nanodrop and 293 µg/ml by Bradford method using BSA as the standard;	GeneID (NCBI): 8243	Recommended Dilutions: WB 1:1000-1:4000 IHC 1:50-1:500
Source: Rabbit	Full Name: structural maintenance of chromosomes 1A	
Isotype: IgG	Calculated MW: 1233 aa, 143 kDa	
Immunogen Catalog Number: AG16286	Observed MW: 143-150 kDa	

Applications

Tested Applications: IHC, WB, ELISA	Positive Controls: WB : A431 cells, HeLa cells, K-562 cells, NIH/3T3 cells
Cited Applications: IHC, WB	IHC : human gliomas tissue,
Species Specificity: human, mouse	
Cited Species: human	

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

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.

Notable Publications

Author	Pubmed ID	Journal	Application
Nerea Ugidos	31620119	Front Immunol	WB
Wen-Juan Xiao	31803224	Front Genet	WB
Weidong Lin	37212524	Cancer Med	WB,IHC

Storage

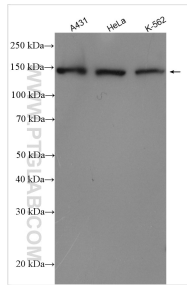
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

***** 20ul sizes contain 0.1% BSA**

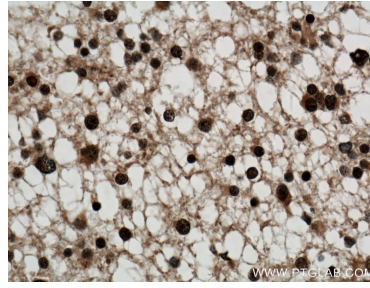
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
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Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 21695-1-AP (SMC1A antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human gliomas tissue slide using 21695-1-AP (SMC1A Antibody) at dilution of 1:200 (under 40x Lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).