

SMC6 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP58734**Specification****SMC6 Polyclonal Antibody - Product Information**

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q96SB8
Reactivity	Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	126 KDa
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SMC6
Epitope Specificity	155-260/1091
Isotype	IgG
Purity	
affinity purified by Protein A	
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm. Nucleus.
SIMILARITY	Belongs to the SMC family. SMC6 subfamily.
SUBUNIT	Forms a heterodimer with SMC5. Component of the SMC5-SMC6 complex which consists at least of SMC5, SMC6, NSMCE2, NSMCE1, NSMCE4A or EID3 and NDNL2.
Post-translational modifications	Ubiquitinated.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Background Descriptions

SMC5/6 complex is recruited to nuclease induced double strand breaks (DSBs) and is required for the recruitment of cohesin to DSBs. The human SMC5/6 complex and the SUMO ligase activity of hMMS21 are required for the prevention of DNA damage induced apoptosis by facilitating DNA repair in human cells.

SMC6 Polyclonal Antibody - Additional Information**Gene ID** 79677**Other Names**

Structural maintenance of chromosomes protein 6, SMC protein 6, SMC-6, hSMC6, SMC6, SMC6L1

Target/Specificity

Widely expressed. Overexpressed in testis.

Dilution

WB~1:1000
IHC-P~N/A
IHC-F~N/A
IF~1:50~200
E~N/A

Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

SMC6 Polyclonal Antibody - Protein Information

Name SMC6

Synonyms SMC6L1

Function

Core component of the SMC5-SMC6 complex, a complex involved in DNA double-strand breaks by homologous recombination. The complex may promote sister chromatid homologous recombination by recruiting the SMC1-SMC3 cohesin complex to double-strand breaks. The complex is required for telomere maintenance via recombination in ALT (alternative lengthening of telomeres) cell lines and mediates sumoylation of shelterin complex (telosome) components which is proposed to lead to shelterin complex disassembly in ALT-associated PML bodies (APBs). Required for recruitment of telomeres to PML nuclear bodies. SMC5-SMC6 complex may prevent transcription of episomal DNA, such as circular viral DNA genome (PubMed:26983541).

Cellular Location

Nucleus. Nucleus speckle. Chromosome {ECO:0000250|UniProtKB:Q924W5}. Nucleus, PML body. Chromosome, telomere. Note=Colocalizes with SMC5 on the X-Y chromosome pair within the sex vesicle during late pachytene/diplotene (By similarity). Localizes to PML nuclear bodies in ALT cell lines (PubMed:17589526). Associates with chromatin (PubMed:25931565). Accumulates with RAD18 and the SLF1-SLF2 complex at replication-coupled DNA interstrand repair and DNA double-strand breaks (DSBs) sites on chromatin in a ubiquitin-dependent manner (PubMed:25931565). Localizes in interchromatin granule clusters (PubMed:11408570). {ECO:0000250|UniProtKB:Q924W5, ECO:0000269|PubMed:11408570, ECO:0000269|PubMed:17589526, ECO:0000269|PubMed:25931565}

Tissue Location

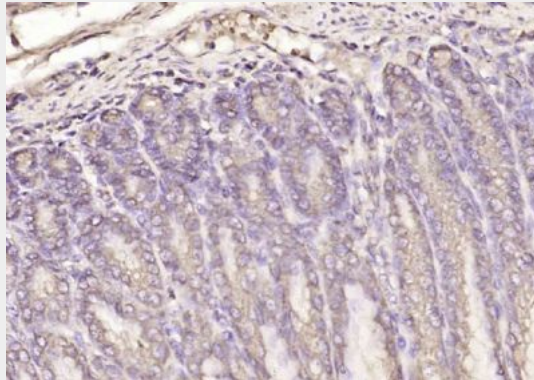
Widely expressed (PubMed:11408570). Strongly expressed in testis (PubMed:11408570).

SMC6 Polyclonal Antibody - Protocols

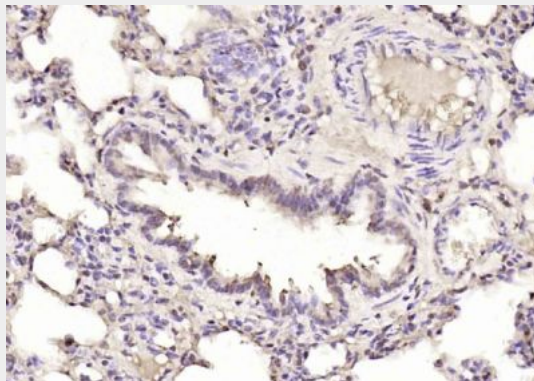
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

SMC6 Polyclonal Antibody - Images



Paraformaldehyde-fixed, paraffin embedded (rat stomach); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SMC6) Polyclonal Antibody, Unconjugated (bs-7730R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (rat lung); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SMC6) Polyclonal Antibody, Unconjugated (bs-7730R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.