

# **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 <u>Q96SB8</u>

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**

<span class ="dilution\_WB">WB~~1:1000</span><br \><span class
="dilution\_IHC-P">IHC-P~~N/A</span><br \><span class
="dilution\_IHC-F">IHC-F~~N/A</span><br \><span class
="dilution\_IF">IF~~1:50~200</span><br \><span class ="dilution\_E">E~~N/A</span>

#### **Format**

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

### **Storage**

Store at -20  $^{\circ}$ 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  $^{\circ}$ 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:<a href="http://www.uniprot.org/citations/26983541" target="blank">26983541</a>/a>).

#### **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**

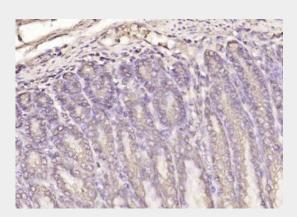
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence

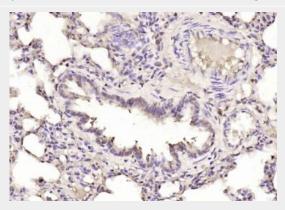


- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

# 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.