

SMC5 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP58733**Specification**

SMC5 Polyclonal Antibody - Product Information

| | |
|-------------------|------------------------|
| Application | IHC-P |
| Primary Accession | Q8IY18 |
| Reactivity | Rat, Dog |
| Host | Rabbit |
| Clonality | Polyclonal |
| Calculated MW | 128806 |

SMC5 Polyclonal Antibody - Additional Information**Gene ID** 23137**Other Names**

Structural maintenance of chromosomes protein 5, SMC protein 5, SMC-5, hSMC5, SMC5, KIAA0594, SMC5L1

Format

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

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.

SMC5 Polyclonal Antibody - Protein Information**Name** SMC5**Synonyms** KIAA0594, SMC5L1**Function**

Core component of the SMC5-SMC6 complex, a complex involved in repair of 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. Required for sister chromatid cohesion during prometaphase and mitotic progression; the function seems to be independent of SMC6. SMC5-SMC6 complex may prevent transcription of episomal DNA, such as circular viral DNA genome (PubMed:26983541).

Cellular Location

Nucleus. Chromosome {ECO:0000250|UniProtKB:Q8CG46}. Nucleus, PML body. Chromosome, telomere. Note=Associates with chromatin (PubMed:25931565). Colocalizes with SMC6 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) 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) {ECO:0000250|UniProtKB:Q8CG46, ECO:0000269|PubMed:25931565}

Tissue Location

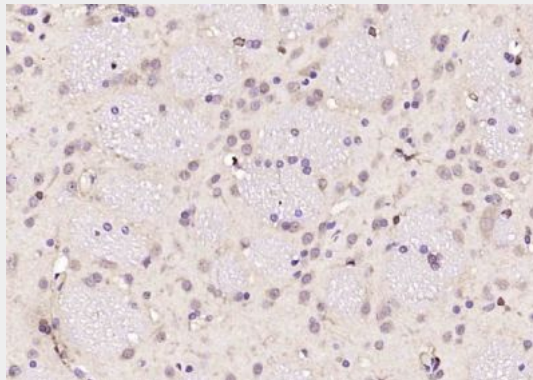
Widely expressed (PubMed:11408570). Strongly expressed in testis (PubMed:11408570).

SMC5 Polyclonal Antibody - Protocols

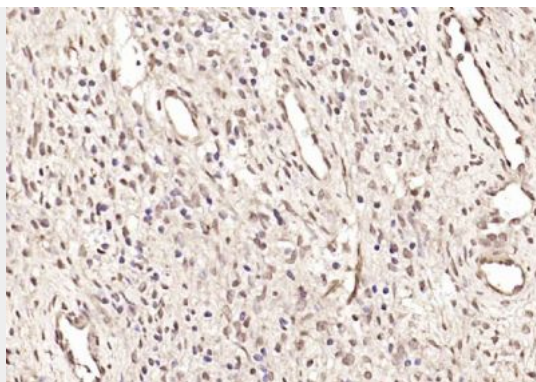
Provided below are standard protocols that you may find useful for product applications.

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

SMC5 Polyclonal Antibody - Images



Paraformaldehyde-fixed, paraffin embedded (rat brain); 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 (SMC5) Polyclonal Antibody, Unconjugated (bs-7729R) 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 (human prostate); 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 (SMC5) Polyclonal Antibody, Unconjugated (bs-7729R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.