

## Product datasheet for **AP06318PU-N**

### SMC1 (SMC1A) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IHC
Recommended Dilution:	<b>Immunohistochemistry on paraffin sections:</b> 1/50-1/200.
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide, corresponding to amino acids 920-972 of Human SMC 1.
Specificity:	This antibody detects endogenous levels of SMC1 protein. (region surrounding Ser951)
Formulation:	Phosphate buffered saline (PBS), pH 7.2. State: Aff - Purified State: Liquid purified Ig fraction Preservative: 0.05% sodium azide
Concentration:	1.0 mg/ml
Purification:	Affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 143 kDa
Gene Name:	structural maintenance of chromosomes 1A
Database Link:	<a href="#">Entrez Gene 24061 Mouse</a> <a href="#">Entrez Gene 8243 Human</a> <a href="#">Q14683</a>



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**Background:**

The SMC (structural maintenance of chromosomes) family of proteins form heterodimeric complexes that modulate sister chromatid cohesion and chromosome condensation for mitosis. The two distinct classes of SMC protein complexes are comprised of SMC1 (also designated SB1.8) with SMC3 (also designated HCAP for human chromosome-associated protein, and Bamacan), and SMC2 (also designated hCAP-E) with SMC4 (also designated hCAP-C). The SMC1/SMC3 complex is required for metaphase progression in mitotic cells and functions independently of the SMC2/SMC4 complex during the cell cycle. SMC1 is ubiquitously expressed as a 150 kDa protein in various human tissues, including thymus, testis, and colon. SMC3 is expressed as a 146 kDa nuclear protein in the colon, but can also occur as a secreted proteoglycan (called Bamacan) expressed in testis and brain. Bamacan contains several glycosylation sites and is thought to play a role in basement membrane physiology.

**Synonyms:**

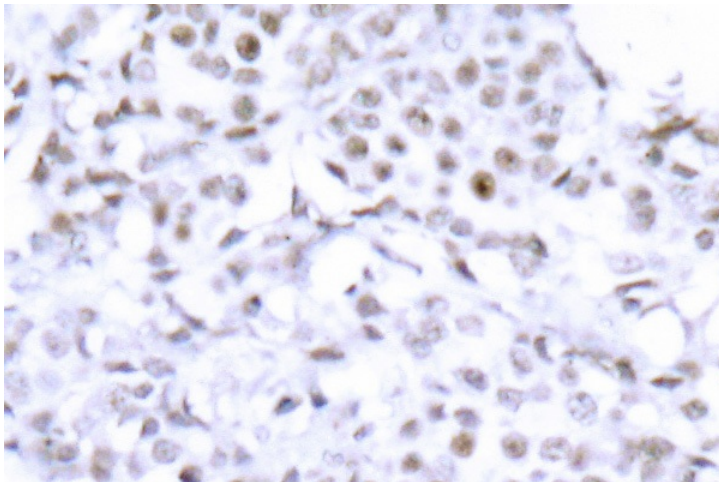
SMC protein 1A, SMC-1A, SMC-1-alpha, SMC1L1, DXS423E

**Protein Families:**

Druggable Genome

**Protein Pathways:**

Cell cycle, Oocyte meiosis

**Product images:**

Immunohistochemistry (IHC) analysis of SMC1 antibody in paraffin-embedded human brain tissue.