

## Mouse anti-Human SMC1A Monoclonal Antibody | anti-SMC1A antibody

SMC1A (N-terminus) Antibody

| CATALOG # | HOST  | REACTIVITY | APPLICATIONS                                                         |
|-----------|-------|------------|----------------------------------------------------------------------|
| AAA290454 | Mouse | Human      | Flow Cytometry, Functional Assay, Immunohistochemistry, Western Blot |

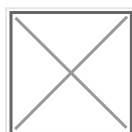
### PRODUCT SYNONYMS

SMC1A; Monoclonal Antibody; SMC1A (N-terminus) Antibody; Purified Mouse Monoclonal Antibody (Mab); Chromosome segregation protein SmcB; DXS423E; KIAA0178; MGC138332; Sb1.8; Segregation of mitotic chromosomes 1; SMC protein 1A; SMC-1-alpha; SMC-1A; SMC1 (structural maintenance of chromosomes 1 yeast) like 1; SMC1; SMC1 structural maintenance of chromosomes 1 like 1; SMC1A\_HUMAN; SMC1alpha; SMC1L1; SMCB; Structural maintenance of chromosomes 1A; Structural maintenance of chromosomes protein 1A.; anti-SMC1A antibody

### PRODUCT SPECIFICATIONS

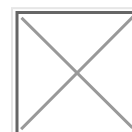
|                                                 |                                                                                                                                                        |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                            | Mouse                                                                                                                                                  |
| Reactivity                                      | Human                                                                                                                                                  |
| Clonality                                       | Monoclonal                                                                                                                                             |
| Form/Format                                     | Purified mouse monoclonal in buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.2% sodium azide, 50% glycerol                            |
| Sequence Length                                 | 1233                                                                                                                                                   |
| Applicable Applications for anti-SMC1A antibody | FCM/FACS (Flow Cytometry), IHC (Immunohistochemistry), WB (Western Blot)                                                                               |
| Antigen Source                                  | Human                                                                                                                                                  |
| Antigen Type                                    | Recombinant Protein                                                                                                                                    |
| Preparation and Storage                         | Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles. |

### IMAGES



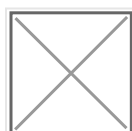
#### FCM/FACS (Flow Cytometry)

Flow Cytometry analysis of HeLa cells stained with SMC1A (N-terminus) (red, 1/100 dilution), followed by FITC-conjugated goat anti-mouse IgG. Black line histogram represents the isotype control, normal mouse IgG.



#### IHC (Immunohistochemistry)

IHC of paraffin-embedded human colon using anti-SMC1A (N-terminus) mouse mAb diluted 1/500-1/1000.



#### WB (Western Blot)

Western blot detection of SMC1A(N-terminus) in HeLaNE, Jurkat and A431 cell lysates using SMC1A (N-terminus) mouse mAb (1:1000 diluted). Predicted band size: 143KDa. Observed band size: 143KDa.

ADDITIONAL INFORMATION

|                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for anti-SMC1A antibody | Involved in chromosome cohesion during cell cycle and in DNA repair. Central component of cohesin complex. The cohesin complex 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. |
| Product Categories/Family for anti-SMC1A antibody   | Cell Biology                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| References                                          | Rocques P.J.,et al.Hum. Mol. Genet. 4:243-249(1995). Nagase T.,et al.DNA Res. 3:17-24(1996). Nakajima D.,et al.DNA Res. 9:99-106(2002). Ross M.T.,et al.Nature 434:325-337(2005). Yazdi P.T.,et al.Genes Dev. 16:571-582(2002).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

NCBI AND UNIPROT INFORMATION

|                                  |                                                                             |
|----------------------------------|-----------------------------------------------------------------------------|
| NCBI GI #                        | 30581135                                                                    |
| NCBI GeneID                      | 8243                                                                        |
| NCBI Accession #                 | NP_006297.2                                                                 |
| NCBI GenBank Nucleotide #        | NM_006306.3                                                                 |
| UniProt Accession #              | Q14683; O14995; Q16351; Q2M228                                              |
| Molecular Weight                 | 143233                                                                      |
| NCBI Official Full Name          | structural maintenance of chromosomes protein 1A isoform 1                  |
| NCBI Official Synonym Full Names | structural maintenance of chromosomes 1A                                    |
| NCBI Official Symbol             | SMC1A                                                                       |
| NCBI Official Synonym Symbols    | SMC1; SMCB; CDLS2; SB1.8; SMC1L1; DXS423E; SMC1alpha                        |
| NCBI Protein Information         | structural maintenance of chromosomes protein 1A                            |
| UniProt Protein Name             | Structural maintenance of chromosomes protein 1A                            |
| UniProt Gene Name                | SMC1A                                                                       |
| UniProt Synonym Gene Names       | DXS423E; KIAA0178; SB1.8; SMC1; SMC1L1; SMC protein 1A; SMC-1-alpha; SMC-1A |
| UniProt Entry Name               | SMC1A_HUMAN                                                                 |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/smc1a-antibody-flow-cytometry-immunohistochemistry-western-blot-elisa/290454>