

**SMC1 Mouse Monoclonal Antibody**

E 10-20426

**Background:** Proper cohesion of sister chromatids is a prerequisite for the correct segregation of chromosomes during cell division. The cohesin multiprotein complex is required for sister chromatid cohesion. This complex is composed partly of two structural maintenance of chromosomes (SMC) proteins, SMC3 and either SMC1L2 or the protein encoded by this gene. Most of the cohesin complexes dissociate from the chromosomes before mitosis, although those complexes at the kinetochore remain. Therefore, the encoded protein is thought to be an important part of functional kinetochores. In addition, this protein interacts with BRCA1 and is phosphorylated by ATM, indicating a potential role for this protein in DNA repair. This gene, which belongs to the SMC gene family, is located in an area of the X-chromosome that escapes X inactivation.

**Catalog Number:** E10-20426

**Amount:** 100 $\mu$ g/100 $\mu$ l

**Clone Number:** 5B6

**Species:** Mouse IgG1

**MW:** 143kDa

**Aliases:** SMC1; SMCB; CDLS2; SB1.8; SMC1L1; DKS423E; KIAA0178; MGC138332; SMC1alpha; DKFZp686L19178; SMC1A

**Entrez Gene:** 8243

**Immunogen:** Purified recombinant fragment of human SMC1 expressed in E. Coli.

**Storage:** Store at 4  $^{\circ}$ 20 for long term storage, store at

**Formulation:** Ascitic fluid containing 0.03% sodium azide.

**Species Reactivities:** Human

**Tested Applications:** WB,IHC,IF,FC,ELISA.Not yet tested in other applications. Determining optimal working dilutions by titration test.

**Application notes:** WB 1/500 - 1/2000,IHC.1/200 - 1/1000,IF.1/200 - 1/1000,FC.1/200 - 1/400..ELISA. Propose

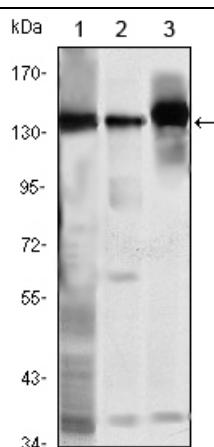


Figure 1. Western blot analysis using SMC1 mouse mAb against K562 (1), Jurkat (2) and A549 (3) cell lysate

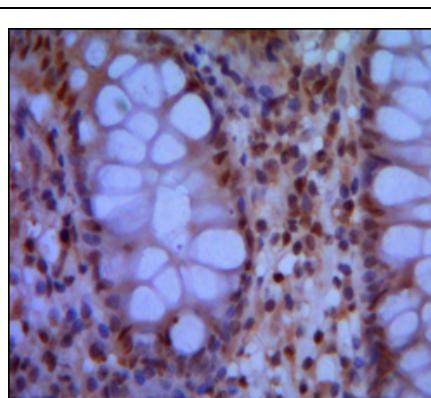


Figure 2. Immunohistochemical analysis of paraffin-embedded human colon using SMC1 mouse mAb with DAB staining.

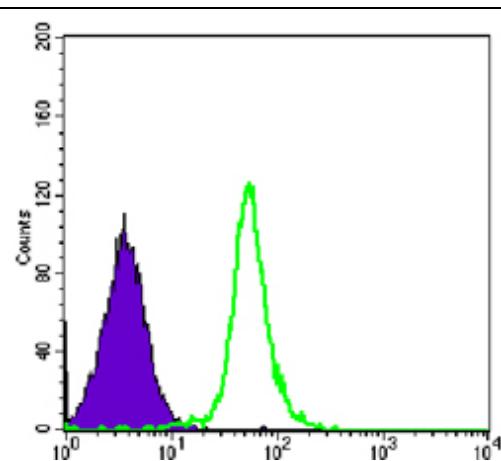


Figure 3. Flow cytometric analysis of HeLa cells using SMC1 mouse mAb (green) and negative control (purple).