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# Product datasheet for TA809791

## SMC1 (SMC1A) Mouse Monoclonal Antibody [Clone ID: OTI1C5]

### Product data:

| | |
|---|---|
| **Product Type:** | Primary Antibodies |
| **Clone Name:** | OTI1C5 |
| **Applications:** | WB |
| **Recommended Dilution:** | WB 1:500~2000 |
| **Reactivity:** | Human, Mouse, Rat |
| **Host:** | Mouse |
| **Isotype:** | IgG2b |
| **Clonality:** | Monoclonal |
| **Immunogen:** | Human recombinant protein fragment corresponding to amino acids 889-1016 of human SMC1A (NP_006297) produced in E.coli. |
| **Formulation:** | PBS (pH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide. |
| **Concentration:** | 1 mg/ml |
| **Purification:** | Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G) |
| **Conjugation:** | Unconjugated |
| **Storage:** | Store at -20°C as received. |
| **Stability:** | Stable for 12 months from date of receipt. |
| **Gene Name:** | structural maintenance of chromosomes 1A |
| **Database Link:** | NP_006297<br>Entrez Gene 24061 MouseEntrez Gene 63996 RatEntrez Gene 8243 Human<br>Q14683 |

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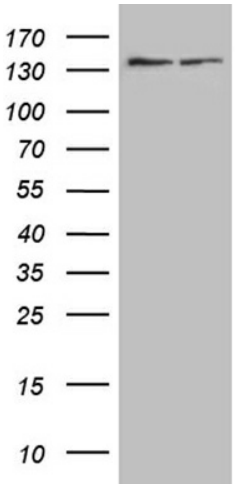
**Background:** Proper cohesion of sister chromatids is a prerequisite for the correct segregation of chromosomes during cell division. The cohesin multiprotein complex is required for sister chromatid cohesion. This complex is composed partly of two structural maintenance of chromosomes (SMC) proteins, SMC3 and either SMC1B 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. Mutations in this gene result in Cornelia de Lange syndrome. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2013]

**Synonyms:** CDLS2; DXS423E; SB1.8; SMC1; SMC1alpha; SMC1L1; SMCB

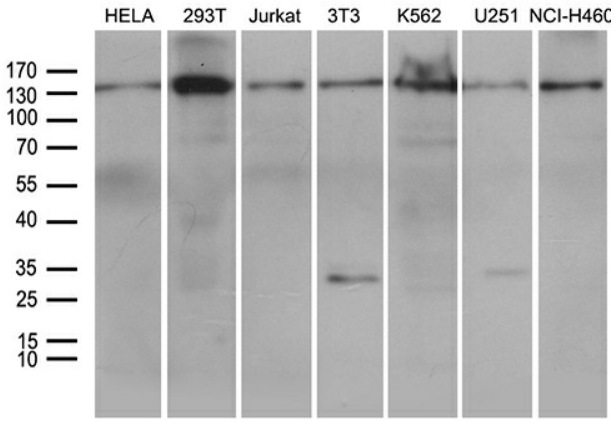
**Protein Families:** Druggable Genome

**Protein Pathways:** Cell cycle, Oocyte meiosis

## Product images:




HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY SMC1A ([RC215888], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-SMC1A (1:2000). Positive lysates [LY401901] (100ug) and [LC401901] (20ug) can be purchased separately from OriGene.




Western blot analysis of extracts (35ug) from 7 different cell lines by using anti-SMC1A monoclonal antibody (1:500).