

## Product datasheet for **TA381769S**

### SMC1 (SMC1A) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IHC, IP, WB
Recommended Dilution:	WB, 1:500 - 1:2000 IHC-P, 1:50 - 1:200 IP, 0.5µg-4µg antibody for 200µg-400µg extracts of whole cells ELISA, Recommended starting concentration is 1 µg/mL. Please optimize the concentration based on your specific assay requirements.
Reactivity:	Human, Mouse, Rat
Modifications:	Phospho S957
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Formulation:	Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C. Avoid freeze / thaw cycles.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	143kDa
Gene Name:	structural maintenance of chromosomes 1A
Database Link:	<a href="#">Entrez Gene 8243 Human Q14683</a>



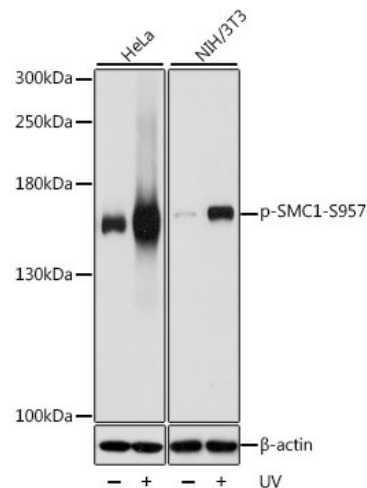
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**Background:**

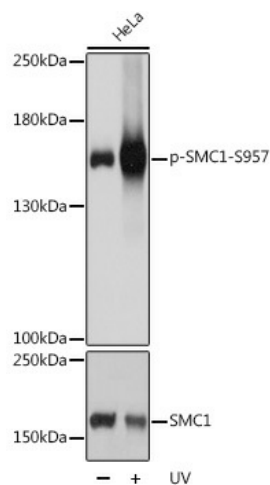
Proper cohesion of sister chromatids is a prerequisite for the correct segregation of chromosomes during cell division. The cohesin multiprotein complex is required for sister chromatid cohesion. This complex is composed partly of two structural maintenance of chromosomes (SMC) proteins, SMC3 and either 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.

**Synonyms:**

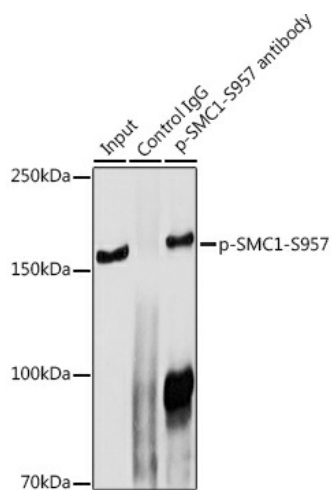
CDLS2; DKFZp686L19178; DXS423E; KIAA0178; MGC138332; SB1.8; SMC1; SMC1alpha; SMC1L1; SMCB

**Product images:**


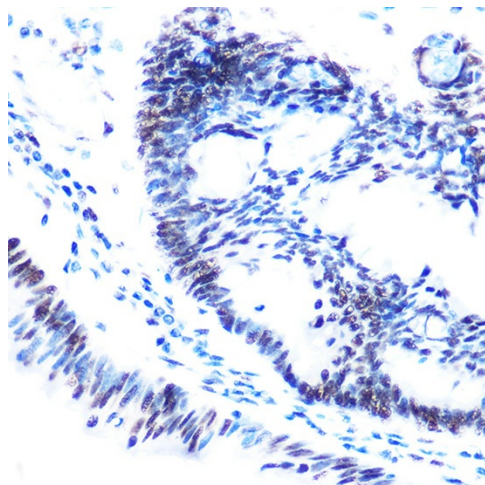
Western blot analysis of various lysates



Western blot analysis of lysates from HeLa cells



Immunoprecipitation analysis of 300 µg extracts of HeLa cells using 3 µg Phospho-SMC1-S957 antibody ([TA381769]). Western blot was performed from the immunoprecipitate using Phospho-SMC1-S957 antibody ([TA381769]) at a dilution of 1:1000.



Immunohistochemistry analysis of paraffin-embedded Human colon carcinoma using Phospho-SMC1-S957 Rabbit pAb ([TA381769]) at dilution of 1:100 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate Buffer (pH 6.0) prior to IHC staining.