

## Product datasheet for **TA365027**

### SMC1 (SMC1A) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 500-2000 WB positive control: HUVEC and Jurkat cell lysates IHC: 25-100 Positive control: Human esophagus cancer Predicted cell location: Nucleus
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Fusion protein of human SMC1A
Formulation:	pH7.4 PBS, 0.05% NaN <sub>3</sub> , 40% Glycerol
Concentration:	lot specific
Purification:	Antigen affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C.
Stability:	1 year
Predicted Protein Size:	143 kDa
Gene Name:	structural maintenance of chromosomes 1A
Database Link:	<a href="#">Entrez Gene 8243 Human Q14683</a>



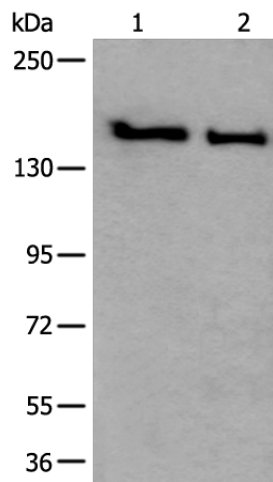
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**Background:**

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:**

Gel: 6%SDS-PAGE

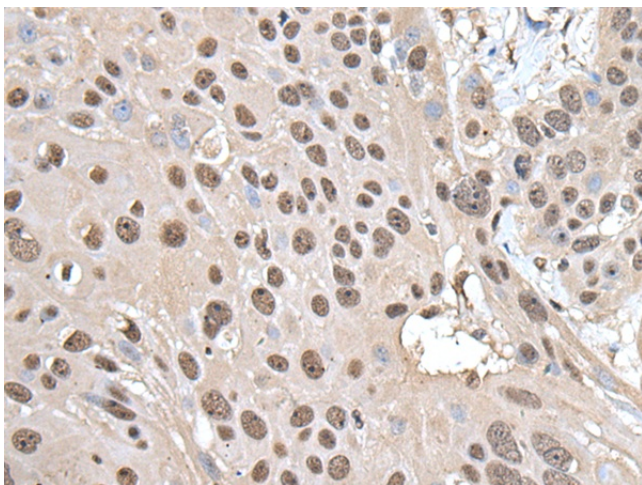
Lysate: 40 µg

Lane 1-2: HUVEC and Jurkat cell lysates

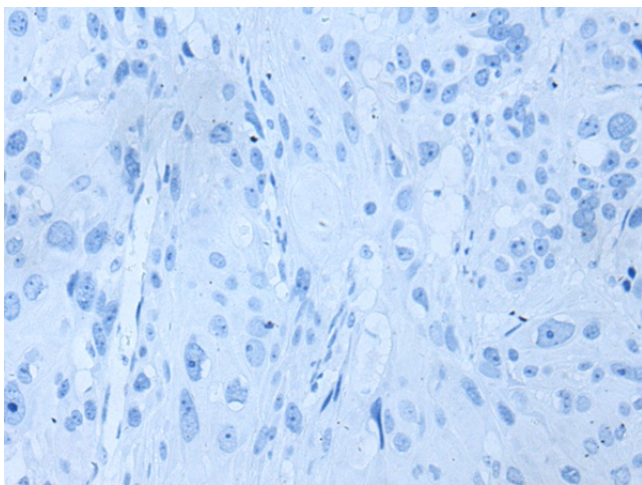
Primary antibody: TA365027 (SMC1A Antibody) at dilution 1/300

Secondary antibody: Goat anti rabbit IgG at 1/8000 dilution

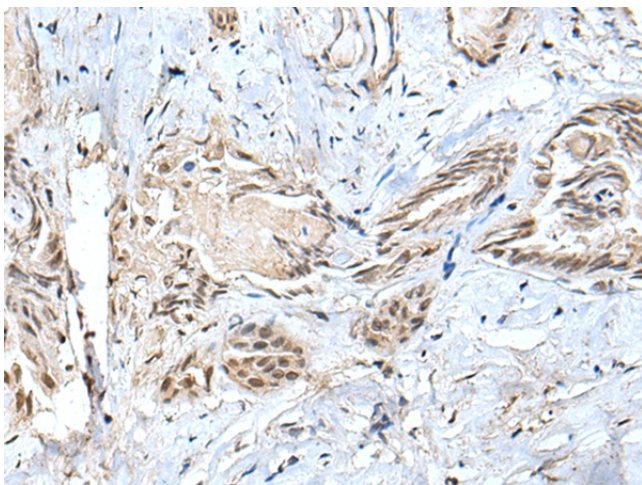
Exposure time: 30 seconds



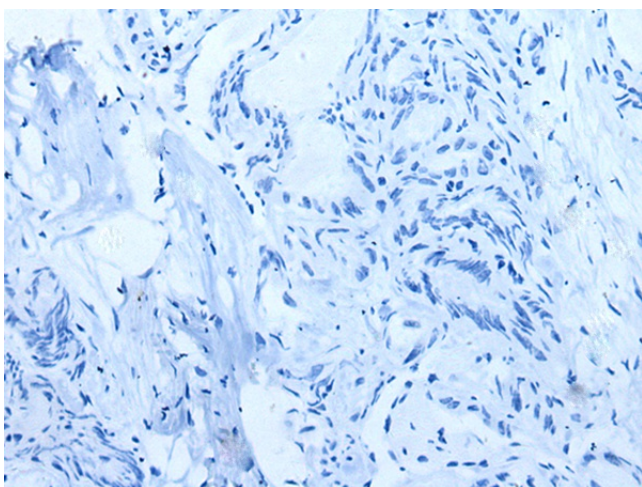
Immunohistochemistry of paraffin-embedded Human esophagus cancer tissue using TA365027 (SMC1A Antibody) at dilution 1/30 (Original magnification:  $\times 200$ )



Immunohistochemistry of paraffin-embedded Human esophagus cancer tissue using TA365027 (SMC1A Antibody) at dilution 1/30, treated with fusion protein. (Original magnification:  $\times 200$ )



Immunohistochemistry of paraffin-embedded Human thyroid cancer tissue using TA365027 (SMC1A Antibody) at dilution 1/30 (Original magnification:  $\times 200$ )



Immunohistochemistry of paraffin-embedded Human thyroid cancer tissue using TA365027 (SMC1A Antibody) at dilution 1/30, treated with fusion protein. (Original magnification: ×200)