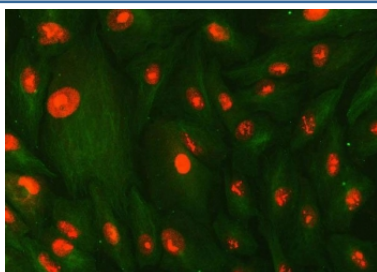


## SMC1A Antibody / Structural maintenance of chromosomes protein 1A (RQ7716)

Catalog No.	Formulation	Size
RQ7716	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

**Bulk quote request**

<b>Availability</b>	1-3 business days
<b>Species Reactivity</b>	Human
<b>Format</b>	Antigen affinity purified
<b>Clonality</b>	Polyclonal (rabbit origin)
<b>Isotype</b>	Rabbit IgG
<b>Purity</b>	Antigen affinity purified
<b>Buffer</b>	Lyophilized from 1X PBS with 2% Trehalose
<b>UniProt</b>	Q14683
<b>Localization</b>	Nuclear
<b>Applications</b>	Western Blot : 0.5-1ug/ml Immunofluorescence : 5ug/ml Direct ELISA : 0.1-0.5ug/ml
<b>Limitations</b>	This SMC1A antibody is available for research use only.



Immunofluorescent staining of FFPE human A549 cells with SMC1A antibody (red) and Beta Tubulin mAb (green). HIER: steam section in pH6 citrate buffer for 20 min.



Western blot testing of human 1) 293T, 2) HeLa and 3) HepG2 cell lysate with SMC1A antibody. Predicted molecular weight ~143 kDa.

## Description

Structural maintenance of chromosomes protein 1A (SMC1A) is a protein that in humans is encoded by the SMC1A gene. 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.

## Application Notes

Optimal dilution of the SMC1A antibody should be determined by the researcher.

## Immunogen

E. coli-derived recombinant human protein (amino acids K59-Q1233) was used as the immunogen for the SMC1A antibody.

## Storage

After reconstitution, the SMC1A antibody can be stored for up to one month at 4°C. For long-term, aliquot and store at -20°C. Avoid repeated freezing and thawing.