


### Anti-SMC2 antibody ab10412

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#### Overview

<b>Product name</b>	Anti-SMC2 antibody
<b>Description</b>	Rabbit polyclonal to SMC2
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IP
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Chimpanzee, Rhesus monkey, Gorilla, Orangutan 
<b>Immunogen</b>	Synthetic peptide. The epitope maps to a region between residue 1150 and the C-terminus (residue 1197) of human Structural Maintenance of Chromosomes 2 using the numbering given in entry NP_006435.1 (GeneID 10592).
<b>Positive control</b>	IP: HeLa cell lysates; WB: HeLa and HEK293 cell lysates
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
<b>Storage buffer</b>	pH: 7 Preservative: 0.1% Sodium azide Constituents: 0.021% PBS, 1.764% Sodium citrate, 1.815% Tris
<b>Purity</b>	Immunogen affinity purified
<b>Purification notes</b>	Antibodies were affinity purified using the peptide immobilized on solid support.
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab10412 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use a concentration of 0.1 µg/ml. Detects a band of approximately 140 kDa (predicted molecular weight: 137 kDa).
IP		Use a concentration of 1 µg/ml.

## Target

### Function

Central component of the condensin complex, a complex required for conversion of interphase chromatin into mitotic-like condense chromosomes. The condensin complex probably introduces positive supercoils into relaxed DNA in the presence of type I topoisomerases and converts nicked DNA into positive knotted forms in the presence of type II topoisomerases.

### Sequence similarities

Belongs to the SMC family. SMC2 subfamily.

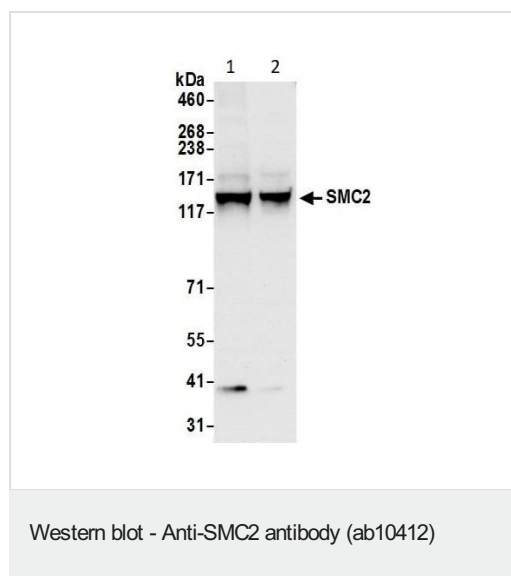
### Domain

The hinge domain, which separates the large intramolecular coiled coil regions, allows the heterodimerization with SMC4, forming a V-shaped heterodimer.

### Cellular localization

Nucleus. Cytoplasm. Chromosome. In interphase cells, the majority of the condensin complex is found in the cytoplasm, while a minority of the complex is associated with chromatin. A subpopulation of the complex however remains associated with chromosome foci in interphase cells. During mitosis, most of the condensin complex is associated with the chromatin. At the onset of prophase, the regulatory subunits of the complex are phosphorylated by CDC2, leading to condensin's association with chromosome arms and to chromosome condensation. Dissociation from chromosomes is observed in late telophase.

## Images



**All lanes :** Anti-SMC2 antibody (ab10412) at 0.1 µg/ml

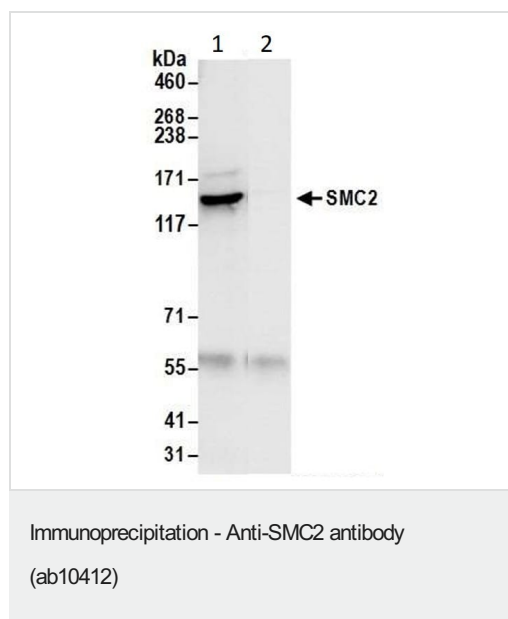
**Lane 1 :** HeLa cell lysate

**Lane 2 :** HEK293 cell lysate

Lysates/proteins at 50 µg per lane.

**Predicted band size:** 137 kDa

**Exposure time:** 3 seconds



Immunoprecipitation of Human Aurora A with ab10412 at 1 µg/mL.

Lane 1: ab10412 + Whole cell lysate (1.0 mg per IP reaction; 20% of IP loaded) from HeLa cells prepared using NETN lysis buffer.

Lane 2: IgG control + Whole cell lysate (1.0 mg per IP reaction; 20% of IP loaded) from HeLa cells prepared using NETN lysis buffer.

Detection: Chemiluminescence

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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