


Product datasheet

Anti-SMC2 antibody ab10399

★★★★☆ [3 Abreviews](#) [8 References](#) [2 Images](#)

Overview

Product name	Anti-SMC2 antibody
Description	Rabbit polyclonal to SMC2
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P
Species reactivity	Reacts with: Human Predicted to work with: Rabbit, Horse, Guinea pig, Cow, Dog, Pig, Xenopus laevis, Chimpanzee, Ferret, Rhesus monkey, Gorilla, Orangutan 
Immunogen	Synthetic peptide corresponding to Human SMC2 aa 50-150. The epitope maps to a region between residues 50 and 100 of human Structural Maintenance of Chromosomes 2 using the numbering given in entry NP_006435.1 (GeneID 10592). Database link: O95347
Positive control	WB: Mock transfected or SMC2 transfected HEK-293T whole cell lysates. IHC-P: Human cerebral cortex tissue.
General notes	<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&As</p>

Properties

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

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab10399 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	★★★★★ (2)	1/5000 - 1/20000. Detects a band of approximately 150 kDa (predicted molecular weight: 143 kDa).
IHC-P		Use a concentration of 5 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

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.

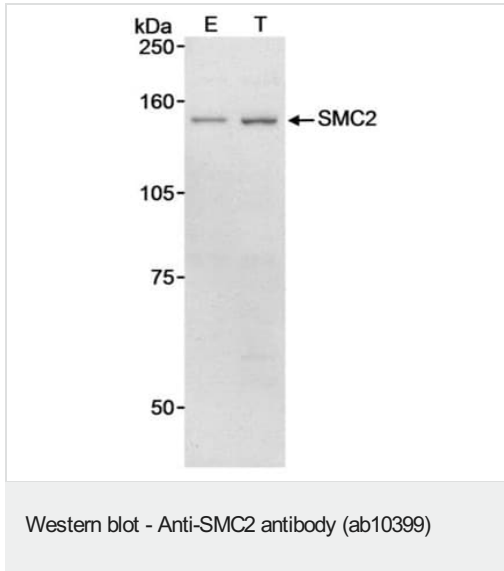
Domain

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 (ab10399) at 0.1 µg/ml

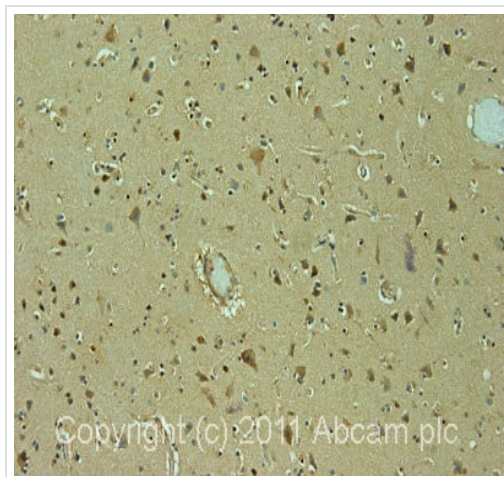
Lane 1 : E: Mock transfected HEK-293T (Human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate

Lane 2 : T: SMC2 transfected HEK-293T (Human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate

Lysates/proteins at 90 µg per lane.

Predicted band size: 143 kDa

Exposure time: 10 minutes



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SMC2 antibody (ab10399)

IHC image of ab10399 staining in normal human cerebral cortex formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab10399, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

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