abcam

Product datasheet

Anti-SA2 antibody ab4463

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Overview

Product name	Anti-SA2 antibody
Description	Goat polyclonal to SA2
Host species	Goat
Specificity	We have data to indicate that this antibody may not cross react with Xenopus laevis. However, this has not been conclusively tested and expression levels may vary in certain cell lines/tissues.
Tested applications	**Suitable for:** IP, WB, ICC
Species reactivity	**Reacts with:** Mouse, Human
Immunogen	Synthetic peptide within Human SA2 aa 1100-1200. The exact immunogen sequence used to generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the antibody for your needs, please **contact** our Scientific Support team to discuss your requirements. NP_006594.3 (GeneID 10735). Database link: **Q8N3U4**
Positive control	WB: HeLa nuclear cell extract. HeLa, HEK-293T and NIH/3T3 whole cell lysate. ICC: HeLa cells. IP: SA2 IP in HeLa whole cell lysate.
General notes	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. 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

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
Clonality	Polyclonal

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab4463 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
IP		Use at 2-10 µg/mg of lysate.
WB		1/1000 - 1/10000. Detects a band of approximately 134 kDa (predicted molecular weight: 134 kDa).
ICC		1/500 - 1/2000.

Target

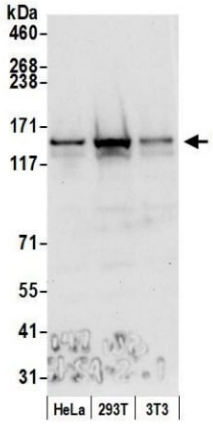
Function Component of cohesin complex, a complex required for the cohesion of sister chromatids after DNA replication. The cohesin complex apparently forms a large proteinaceous ring within which sister chromatids can be trapped. At anaphase, the complex is cleaved and dissociates from chromatin, allowing sister chromatids to segregate. The cohesin complex may also play a role in spindle pole assembly during mitosis.

Sequence similarities Belongs to the SCC3 family.
Contains 1 SCD (stromalin conservative) domain.

Post-translational modifications Phosphorylated by PLK. The large dissociation of cohesin from chromosome arms during prophase is partly due to its phosphorylation.

Cellular localization Nucleus. Chromosome. Chromosome > centromere. Associates with chromatin. Before prophase it is scattered along chromosome arms. During prophase, most of cohesin complexes dissociate from chromatin probably because of phosphorylation by PLK, except at centromeres, where cohesin complexes remain. At anaphase, the RAD21 subunit of cohesin is cleaved, leading to the dissociation of the complex from chromosomes, allowing chromosome separation. In germ cells, cohesin complex dissociates from chromatin at prophase I, and may be replaced by a meiosis-specific cohesin complex.

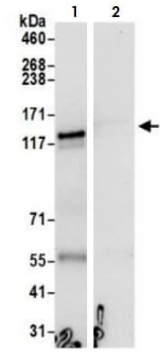
Images



Western blot - Anti-SA2 antibody (ab4463)

Whole cell lysate (50 µg) from HeLa, HEK-293T, and NIH/3T3 cells prepared using NETN lysis buffer.

ab4463 used for WB at 0.1 µg/ml.



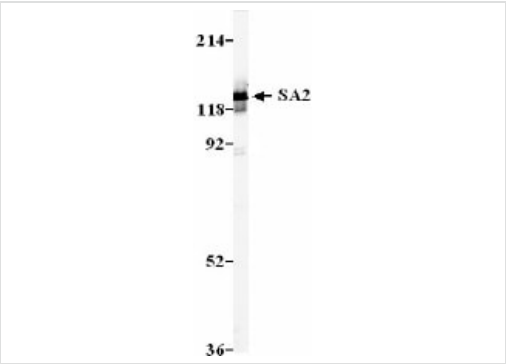
Immunoprecipitation - Anti-SA2 antibody (ab4463)

Whole cell lysate (0.5 or 1.0 mg per IP reaction; 20% of IP loaded) from HeLa cells prepared using NETN lysis buffer.

Lane 1: ab4463 used for IP at 6 µg per reaction.

Lane 2: Control IgG.

For blotting immunoprecipitated SA2, ab4463 was used at 1 µg/ml.



Western blot - Anti-SA2 antibody (ab4463)

Nuclear Extract from HeLa cells (~5 x 10^5 cells).

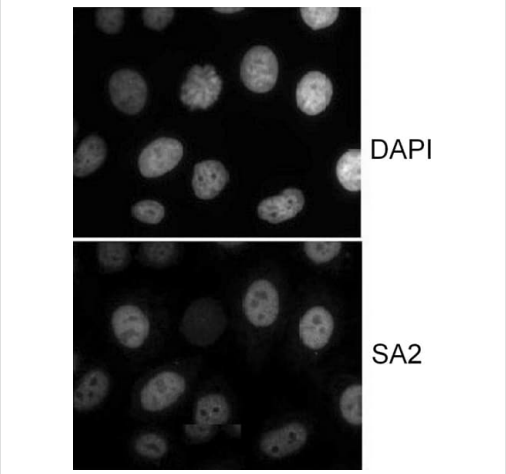
ab4463 at 0.5 µg/ml.

Detection: ECL with 15 second exposure.

Nuclear Extract from HeLa cells (~5 x 10e5 cells).

ab4463 at 0.5 µg/ml.

Detection: ECL with 15 second exposure.



Immunocytochemistry - Anti-SA2 antibody (ab4463)

Immunocytochemistry analysis of HeLa cells (extracted for 5 minutes at 4°C in 0.5% Triton in CSK buffer) labelling SA2 with ab4463 at 1µg/ml.

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