




# Anti-SMC1A antibody ab140493

**1 References**   **画像数 5**

### 製品の概要

製品名	Anti-SMC1A antibody
製品の詳細	Goat polyclonal to SMC1A
由来種	Goat
アプリケーション	<b>適用あり:</b> WB, IP, IHC-P
種交差性	<b>交差種:</b> Mouse, Human <b>交差が予測される動物種:</b> Rat, Rabbit, Horse, Chicken, Guinea pig, Cow, Dog, Pig, Rhesus monkey, Gorilla, Chinese hamster, Orangutan, Bat, Platypus 
免疫原	Synthetic peptide corresponding to Human SMC1A aa 1150-1250. Database link: <a href="#">Q14683</a> <div>  <a href="#">Run BLAST with</a>  <a href="#">Run BLAST with</a> </div>
ポジティブ・コントロール	WB: 293T, HeLa, Jurkat whole cell lysate ( <a href="#">ab7899</a> ); NIH3T3 cell lysate. IP: HeLa cell lysate IHC-P: Human breast carcinoma and mouse renal cell carcinoma tissues.
特記事項	<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>

### 製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
バッファー	pH: 7 Preservative: 0.09% Sodium azide Constituent: 99% Tris citrate/phosphate  pH: 7-8
精製度	Immunogen affinity purified
特記事項 (精製)	ab140493 was affinity purified using an epitope specific to SMC1A immobilized on a solid

	support.
ポリ/モノ	ポリクローナル
アイソタイプ	IgG

## アプリケーション

**The Abpromise guarantee**      **Abpromise保証は、** 次のテスト済みアプリケーションにおけるab140493の使用に適用されます  
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

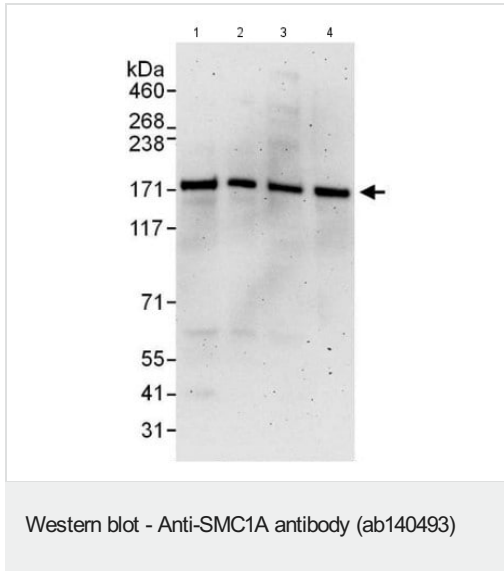
アプリケーション	Abreviews	特記事項
WB		1/2000 - 1/10000. Predicted molecular weight: 143 kDa.
IP		Use at 2-10 µg/mg of lysate.
IHC-P		1/500 - 1/2000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

## ターゲット情報

機能	Involved in chromosome cohesion during cell cycle and in DNA repair. Central component of cohesin complex. The cohesin complex is 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. Involved in DNA repair via its interaction with BRCA1 and its related phosphorylation by ATM, or via its phosphorylation by ATR. Works as a downstream effector both in the ATM/NBS1 branch and in the ATR/MSH2 branch of S-phase checkpoint.
関連疾患	Defects in SMC1A are the cause of Cornelia de Lange syndrome type 2 (CDLS2) [MIM:300590]; also known as Cornelia de Lange syndrome X-linked. CDLS is a clinically heterogeneous developmental disorder associated with malformations affecting multiple systems. CDLS is characterized by facial dysmorphisms, abnormal hands and feet, growth delay, cognitive retardation and various other malformations including gastroesophageal dysfunction and cardiac, ophthalmologic and genitourinary anomalies.
配列類似性	Belongs to the SMC family. SMC1 subfamily.
ドメイン	The flexible hinge domain, which separates the large intramolecular coiled coil regions, allows the heterotypic interaction with the corresponding domain of SMC3, forming a V-shaped heterodimer. The two heads of the heterodimer are then connected by different ends of the cleavable RAD21 protein, forming a ring structure.
翻訳後修飾	Phosphorylated by ATM upon ionizing radiation in a NBS1-dependent manner. Phosphorylated by ATR upon DNA methylation in a MSH2/MSH6-dependent manner. Phosphorylation of Ser-957 and Ser-966 activates it and is required for S-phase checkpoint activation.
細胞内局在	Nucleus. Chromosome. Chromosome > centromere > kinetochore. 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 the cohesin complex 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. The phosphorylated form on Ser-957 and Ser-966 associates with chromatin during G1/S/G2 phases but not during M phase, suggesting that phosphorylation does not regulate cohesin function. Integral component of the functional centromere-kinetochore complex at the kinetochore region during mitosis.

## 画像



**All lanes :** Anti-SMC1A antibody (ab140493) at 0.1 µg/ml

**Lane 1 :** 293T whole cell lysate at 50 µg

**Lane 2 :** 293T whole cell lysate at 15 µg

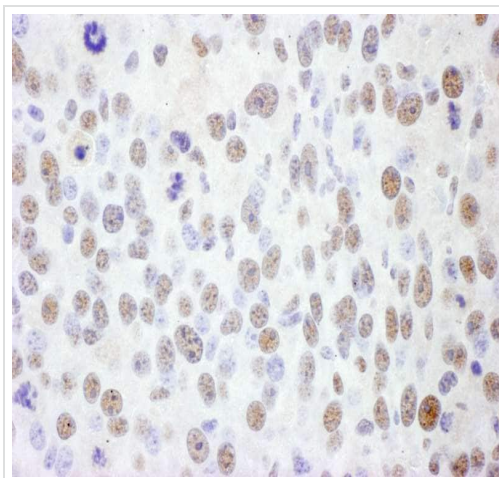
**Lane 3 :** HeLa whole cell lysate at 50 µg

**Lane 4 :** Jurkat whole cell lysate at 50 µg

Developed using the ECL technique.

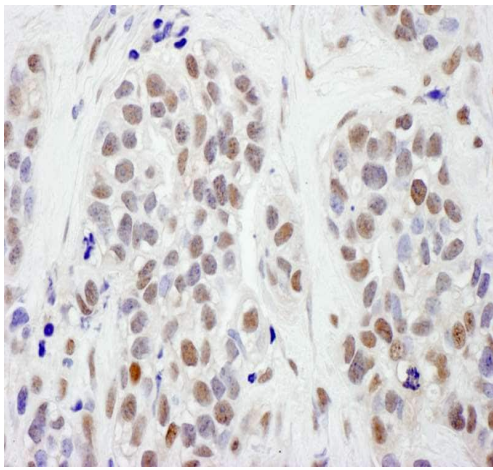
**Predicted band size:** 143 kDa

**Exposure time:** 3 minutes



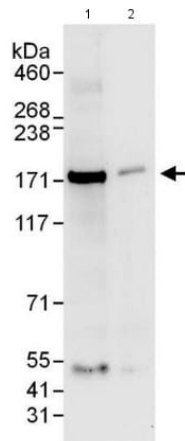
Immunohistochemical analysis of formalin-fixed, paraffin-embedded human breast carcinoma tissue labeling SMC1A with ab140493 at a 1/1000 dilution.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SMC1A antibody (ab140493)



Immunohistochemical analysis of formalin-fixed, paraffin-embedded mouse renal cell carcinoma tissue labeling SMC1A with ab140493 at a 1/1000 dilution.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SMC1A antibody (ab140493)



**All lanes :** Anti-SMC1A antibody (ab140493) at 0.4 µg/ml

**Lane 1 :** NIH3T3 whole cell lysate at 50 µg

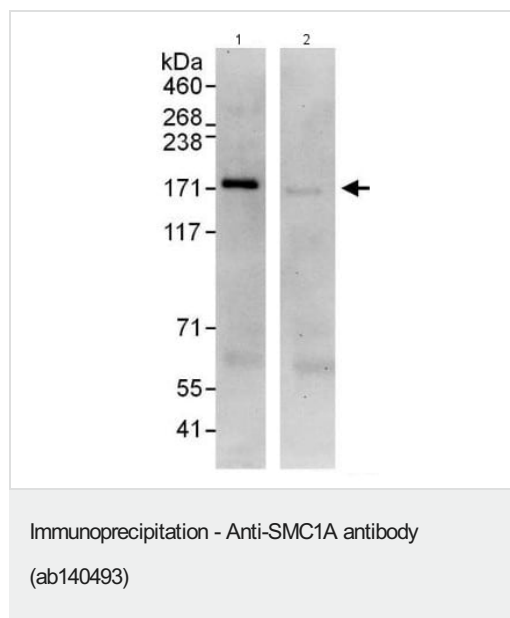
**Lane 2 :** NIH3T3 whole cell lysate at 15 µg

Developed using the ECL technique.

**Predicted band size:** 143 kDa

**Exposure time:** 30 seconds

Western blot - Anti-SMC1A antibody (ab140493)



Immunoprecipitation of SMC1A from HeLa whole cell lysate by ab140493 at 6 µg/mg lysate (lane 1). 1mg of HeLa whole cell lysate was used, 20% of immunoprecipitate was loaded. Lane 2: IgG control. Detection: chemiluminescence. Exposure time: 30 seconds.

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