

# Product Datasheet

## SMC2 Antibody - BSA Free

### NB100-373

Unit Size: 100 ul

Store at 4C. Do not freeze.

[www.novusbio.com](http://www.novusbio.com)



[technical@novusbio.com](mailto:technical@novusbio.com)

**Publications: 8**

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Updated 9/9/2025 v.20.1

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**NB100-373**

SMC2 Antibody - BSA Free

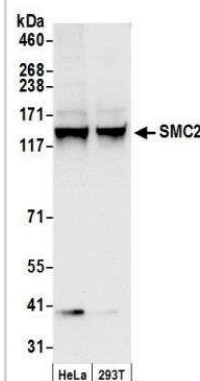
Product Information	
Unit Size	100 ul
Concentration	1.0 mg/ml
Storage	Store at 4C. Do not freeze.
Clonality	Polyclonal
Preservative	0.09% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	Tris-Citrate/Phosphate (pH 7.0 - 8.0)

Product Description	
Description	Novus Biologicals Rabbit SMC2 Antibody - BSA Free (NB100-373) is a polyclonal antibody validated for use in WB, ICC/IF and IP. Anti-SMC2 Antibody: Cited in 8 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	10592
Gene Symbol	SMC2
Species	Human
Immunogen	The immunogen recognized by this antibody 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).

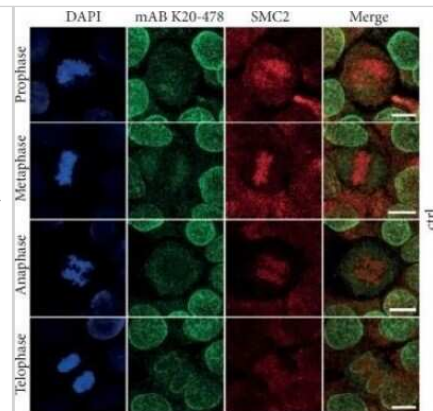
Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation, Knockdown Validated
Recommended Dilutions	Western Blot 1:2000 - 1:10000, Immunocytochemistry/ Immunofluorescence 1:200-1:400, Immunoprecipitation 2-10 ug/mg lysate, Knockdown Validated
Application Notes	NB 100-373 may be used for Western Blot, where a band at ~155 kDa is seen, representing SMC2 protein. *The investigator should determine the optimal working dilution for a specific application.

**Images**

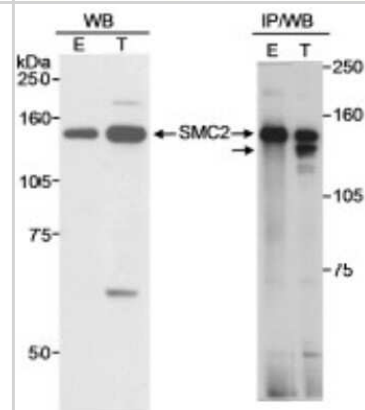
Western Blot: SMC2 Antibody [NB100-373] - Detection of Human SMC2 by Western Blot. Samples: Whole cell lysate (50 ug) from HeLa and 293T cells prepared using NETN lysis buffer. Antibody: Affinity purified rabbit anti-SMC2 antibody NB100-373 used for WB at 0.1 ug/ml. Detection: Chemiluminescence with an exposure time of 3 seconds.



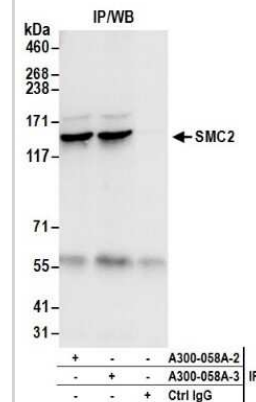
Immunocytochemistry/Immunofluorescence: SMC2 Antibody [NB100-373] - SMC2 in HaCaT keratinocytes treated with control shRNA (upper panels) and treated with Nesprin-2-SMC domain specific shRNA (lower panels). Nesprin-2 was detected with mAb K20-478. Bar, 10  $\mu$ m. Image collected and cropped by CiteAb from the following publication (<https://www.hindawi.com/journals/ijcb/2017/8607532/>), licensed under a CC-BY license.



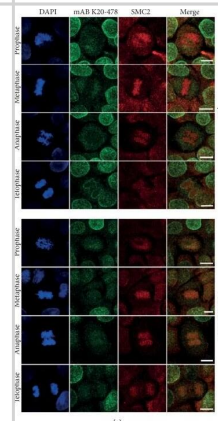
Western Blot: SMC2 Antibody [NB100-373] - Detection of Human SMC2 on HeLa whole cell lysate using NB100-373.



Western Blot: SMC2 Antibody [NB100-373] - Samples: Whole cell lysate (0.5 or 1.0 mg per IP reaction; 20% of IP loaded) from HeLa cells prepared using NETN lysis buffer. Antibodies: Affinity purified rabbit anti-SMC2 antibody (lot was used at 1  $\mu$ g/ml. Detection: Chemiluminescence with an exposure time of 3 seconds.



SMC2 (a) and SMC4 (b) in HaCaT keratinocytes treated with control shRNA (upper panels) and treated with Nesprin-2-SMC domain specific shRNA (lower panels). Nesprin-2 was detected with mAb K20-478. Bar, 10  $\mu$ m. (c) Localization of Nesprin-2 after siRNA mediated knockdown of SMC2 in COS7 cells. Staining was with SMC2 specific antibodies and mAb K20-478 for Nesprin-2. Bar, 5  $\mu$ m. (d) Evaluation of the SMC2 knockdown. SMC2 fluorescence intensity was measured in the center of mitotic chromosomes. 10 siRNA treated cells and 12 control cells (control treatment) were analyzed ( $P$  value = 0.0001). Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/29445399/>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Gnenc II, Wolff A, Schmidt J et al. Single-cell transcription profiles in Bloom syndrome patients link BLM deficiency with altered condensin complex expression signatures *Human Molecular Genetics* 2022-07-07 [PMID: 35099000]

Xing X, Mrob C, Hao L et al. Nesprin-2 Interacts with Condensin Component SMC2 *Int J Cell Biol.* 2017-12-26 [PMID: 29445399] (WB, ICC/IF, IP, KD, Human)

Liu W, Tanasa B, Tyurina OV et al. PHF8 mediates histone H4 lysine 20 demethylation events involved in cell cycle progression. *Nature* 2010-07-01 [PMID: 20622854]

Kurasawa Y, Yu-Lee LY. PICH and cotargeted Plk1 coordinately maintain prometaphase chromosome arm architecture. *Mol Biol Cell* 2010-04-01 [PMID: 20130082]

Bandhakavi S, Kim YM, Ro SH et al. Quantitative nuclear proteomics identifies mTOR regulation of DNA damage response. *Mol Cell Proteomics* 2010-02-01 [PMID: 19955088]

Canudas S, Smith S. Differential regulation of telomere and centromere cohesion by the Scc3 homologues SA1 and SA2, respectively, in human cells. *J Cell Biol* 2009-10-01 [PMID: 19822671]

Nash K, Chen W, Salganik M et al. Identification of cellular proteins that interact with the adeno-associated virus rep protein. *J Virol* 2009-01-01 [PMID: 18971280]

Blank M, Lerenthal Y, Mittelman L et al. Condensin I recruitment and uneven chromatin condensation precede mitotic cell death in response to DNA damage. *J Cell Biol* 2006-07-01 [PMID: 16847100]





### **Novus Biologicals USA**

10730 E. Briarwood Avenue  
Centennial, CO 80112  
USA  
Phone: 303.730.1950  
Toll Free: 1.888.506.6887  
Fax: 303.730.1966  
nb-customerservice@bio-techne.com

### **Bio-Techne Canada**

21 Canmotor Ave  
Toronto, ON M8Z 4E6  
Canada  
Phone: 905.827.6400  
Toll Free: 855.668.8722  
Fax: 905.827.6402  
canada.inquires@bio-techne.com

### **Bio-Techne Ltd**

19 Barton Lane  
Abingdon Science Park  
Abingdon, OX14 3NB, United Kingdom  
Phone: (44) (0) 1235 529449  
Free Phone: 0800 37 34 15  
Fax: (44) (0) 1235 533420  
info.EMEA@bio-techne.com

### **General Contact Information**

www.novusbio.com  
Technical Support: nb-technical@bio-techne.com  
Orders: nb-customerservice@bio-techne.com  
General: novus@novusbio.com

### **Products Related to NB100-373**

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NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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