

# Product Datasheet

## SMC5 Antibody - BSA Free

### NB100-469

Unit Size: 100 ul

Store at 4C. Do not freeze.

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**NB100-469**

SMC5 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)

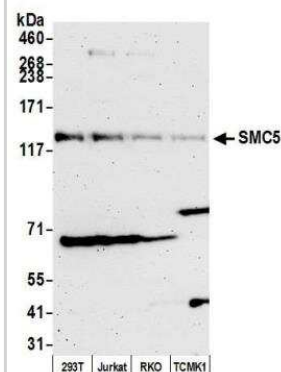
Product Description	
Host	Rabbit
Gene ID	23137
Gene Symbol	SMC5
Species	Human, Mouse
Immunogen	The immunogen recognized by this antibody maps to a region between residues 1050 and the C-terminus (residue 1101) of human Structural Maintenance of Chromosomes 5 using the numbering given in TrEMBL entry Q8IY18 (GeneID 23137).

Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation
Recommended Dilutions	Western Blot 1:2000 - 1:10000, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation 2-10 ug/mg lysate
Application Notes	Use in ICC/IF reported in scientific literature (PMID 28302748).

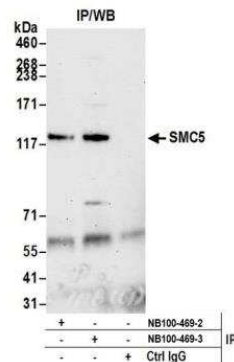


## Images

**Western Blot: SMC5 Antibody [NB100-469] - Detection of human and mouse SMC5 by western blot.** Samples: Whole cell lysate (50 ug) from HEK293T, Jurkat, RKO, and TCMK-1 cells prepared using NETN lysis buffer. Antibody: Affinity purified rabbit anti-SMC5 antibody NB100-469 used for WB at 0.1 ug/ml. Detection: Chemiluminescence with an exposure time of 3 minutes.



**Immunoprecipitation: SMC5 Antibody [NB100-469] - Detection of human SMC5 by western blot of immunoprecipitates.** Samples: Whole cell lysate (1.0 mg per IP reaction; 20% of IP loaded) from HEK293T cells prepared using NETN lysis buffer. Antibodies: Affinity purified rabbit anti-SMC5 antibody NB100-469 (lot 3) used for IP at 6 ug per reaction. SMC5 was also immunoprecipitated by a previous lot of this antibody (lot 2). For blotting immunoprecipitated SMC5, NB100-469 was used at 0.1 ug/ml. Detection: Chemiluminescence with an exposure time of 75 seconds.



## Publications

Wenjiao Z, Yuanping S, Changrun Z et al. In-frame deletion of SMC5 related with the phenotype of primordial dwarfism, chromosomal instability and insulin resistance. Clin Transl Med. 2023-01-15 [PMID: 36627765]

Neus P Lorite, Sonia Apostolova, Marta Guasch-Vallés, Aaron Pryer, Fernando Unzueta, Raimundo Freire, Roger Solé-Soler, Neus Pedraza, Xavier Dolcet, Eloi Garí, Neus Agell, Elaine M Taylor, Neus Colomina, Jordi Torres-Rosell Crucial role of the NSE1 RING domain in Smc5/6 stability and FANCM-independent fork progression. Cellular and molecular life sciences : CMLS 2024-06-07 [PMID: 38847937]

Tiffany Cho, Lisa Hoeg, Dheva Setiাপutra, Daniel Durocher NFATC2IP is a mediator of SUMO-dependent genome integrity Genes & Development 2024-03-01 [PMID: 38503515]

G. Hwang, D. E. Verver, M. A. Handel, G. Hamer, P. W. Jordan, Orna Cohen-Fix Depletion of SMC5/6 sensitizes male germ cells to DNA damage Molecular Biology of the Cell 2018-12-01 [PMID: 30281394]

Cho T, Zhao Y, Olivieri M et al. Chemogenetic profiling of ubiquitin-like modifier pathways identifies NFATC2IP as a mediator of SUMO-dependent genome integrity bioRxiv 2023-07-01 (WB, Human)

Details:  
1:500 dilution

Venegas AB, Natsume T, Kanemaki M, Hickson ID Inducible Degradation of the Human SMC5/6 Complex Reveals an Essential Role Only during Interphase Cell Rep 2020-04-21 [PMID: 32320646] (WB, Human)

Hwang G, Sun F, O'Brien M et al. SMC5/6 is required for the formation of segregation-competent bivalent chromosomes during meiosis I in mouse oocytes. Development. 2017-03-16 [PMID: 28302748] (ICC/IF, Mouse)

Draskovic I, Arnoult N, Steiner V et al. Probing PML body function in ALT cells reveals spatiotemporal requirements for telomere recombination. Proc Natl Acad Sci U S A. [PMID: 19717459]

Franklin S, Zhang MJ, Chen H et al. Expand+Specialized compartments of cardiac nuclei exhibit distinct proteomic anatomy. Mol Cell Proteomics. 2010-08-31 [PMID: 20807835]



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### **Products Related to NB100-469**

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HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
NBP2-07214	SMC5 Overexpression Lysate

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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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