

Product Datasheet

SMC1 [p Ser966] Antibody - BSA Free NB100-206

Unit Size: 100 ul

Store at 4C. Do not freeze.

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NB100-206

SMC1 [p Ser966] 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	This antibody can be used as the primary antibody in a PLA assay with the following as complementing antibodies:NB100-322, NB100-204
Host	Rabbit
Gene ID	8243
Gene Symbol	SMC1A
Species	Human, Mouse
Reactivity Notes	Mouse reactivity reported in scientific literature (PMID:25820262).
Immunogen	Immunogen for this antibody was a phosphorylated synthetic peptide, which represented a portion of human Structural Maintenance of Chromosomes 1 (GeneID 8243) around serine 966 according to the numbering given in entry NP_006297.2.
Notes	This antibody can be used as the primary antibody in a PLA assay with the following as complementing antibodies:NB100-322, NB100-204

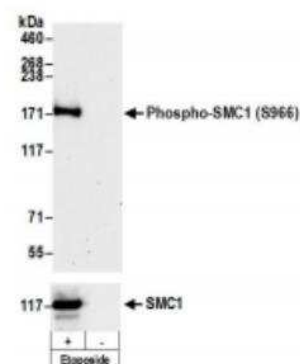
Product Application Details

Applications	Western Blot, ELISA, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation
Recommended Dilutions	Western Blot 1:2000 - 1:10000, ELISA 1:100-1:2000, Immunohistochemistry 1:1000 - 1:5000, Immunocytochemistry/ Immunofluorescence 1:500 - 1:5000, Immunoprecipitation 2 - 5 ug/mg of lysate, Immunohistochemistry-Paraffin 1:1000 - 1:5000
Application Notes	Elisa reactivity reported in (PMID: 20080624). Epitope retrieval with citrate buffer pH6.0 is recommended for FFPE tissue sections. ICC/IF-Formaldehyde fixation is recommended. Permeabilization with Triton-X 100 is recommended for formaldehyde-fixed cells.

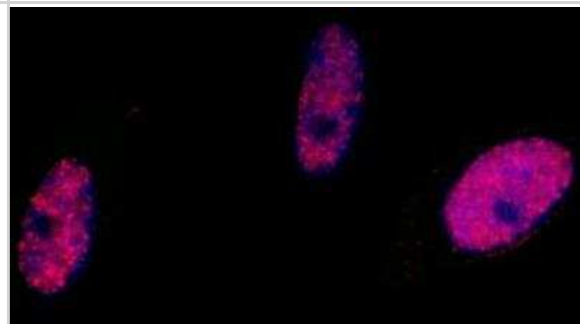


Images

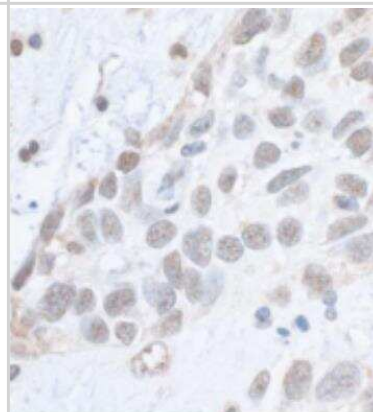
Western Blot: SMC1 [p Ser966] Antibody [NB100-206] - Whole cell lysate (50 ug) from Jurkat cells treated with 100 uM EPE (+) or mock treated (-). Antibodies: Affinity purified rabbit anti-Phospho SMC1 (S966) antibody used at 0.1 ug/ml. Detection: Chemiluminescence with an exposure time of 3 minutes. For detection of total SMC1, rabbit anti-SMC1 antibody was used.



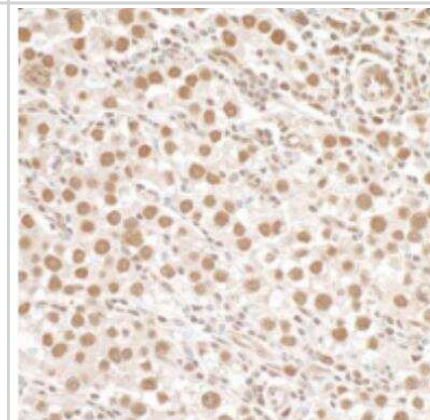
Immunocytochemistry/Immunofluorescence: SMC1 [p Ser966] Antibody [NB100-206] - Neocarzinostatin treated asynchronous HeLa cells. Antibody: Affinity purified rabbit anti-Phospho SMC1 used at a dilution of 1:5,000 (0.2ug/ml). Detection: Red fluorescent Anti-rabbit IgG-DyLight (R) 594 conjugated used at a dilution of 1:100.



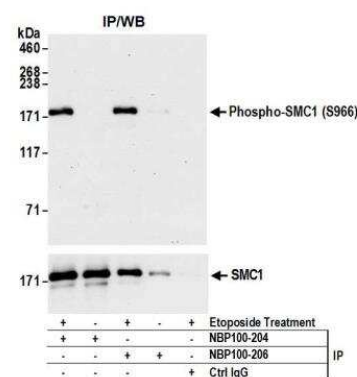
Immunohistochemistry-Paraffin: SMC1 [p Ser966] Antibody [NB100-206] - Human breast carcinoma. Antibody: Affinity purified rabbit antiPhospho SMC1 (S966) used at a dilution of 1:1,000 (1ug/ml). Detection: DAB



Immunohistochemistry-Paraffin: SMC1 [p Ser966] Antibody [NB100-206] - Human testicular seminoma. Antibody: Affinity purified rabbit anti-Phospho SMC1 (S966) used at a dilution of 1:1,000 (1ug/ml). Detection: DAB



SMC1 [p Ser966] Antibody [NB100-206] - Detection of human Phospho SMC1 (S966) by western blot of immunoprecipitates. Samples: Whole cell lysate (1.0 mg per IP reaction; 20% of IP loaded) from Jurkat cells treated with 100 μ M EPE (+) or mock treated (-). Antibodies: Rabbit anti-Phospho SMC1 (S966) antibody NB100-206 used for IP at 3 μ l per reaction. Phospho SMC1 (S966) was also immunoprecipitated by rabbit anti-SMC1 antibody NB100-204. For blotting immunoprecipitated Phospho SMC1 NB100-206 was used at 1 μ g/ml. Detection: Chemiluminescence with an exposure time of 3 minutes. For detection of total SMC1, rabbit anti-SMC1 antibody NB100-204 was used.



Publications

La Salle S, Sun F, Zhang XD et al. Developmental control of sumoylation pathway proteins in mouse male germ cells. *Dev Biol*. 2008-09-01 [PMID: 18602382]

Details:

SAE2 (IMG-5111A), PIASg (IMG-290), SENP1 CT (IMG-521). WB: Male germ cells; leptotene/zygotene, prepubertal pachytene, and adult pachytene spermatocytes, Fig 5.

Nayler S, Gatei M, Kozlov S et al. Embryonic Stem Cells/Induced Pluripotent Stem (iPS) Cells: Induced Pluripotent Stem Cells from Ataxia-Telangiectasia Recapitulate the Cellular Phenotype Stem Cells *Transl Med* 2012-12-01 [PMID: 23197857]

A-TWinnipeg: Pathogenesis of rare ATM missense mutation c.6200C>A with decreased protein expression and downstream signaling, early-onset dystonia, cancer, and life-threatening radiotoxicity. Nakamura K, Fike F, Haghighyegh S *Mol Genet Genomic Med* 2014-02-02 [PMID: 25077176] (WB, Human)

Batenburg NL, Thompson EL, Hendrickson EA, Zhu XD. Cockayne syndrome group B protein regulates DNA double-strand break repair and checkpoint activation. *EMBO J*. 2015-03-27 [PMID: 25820262] (WB, Mouse)

Lee P, Martin NT, Nakamura K et al. SMRT compounds abrogate cellular phenotypes of ataxia telangiectasia in neural derivatives of patient-specific hiPSCs. *Nat Commun* 2013-01-01 [PMID: 23652012] (ICC/IF, Human)

Takahashi A, Mori E, Ohnishi T. The foci of DNA double strand break-recognition proteins localize with gammaH2AX after heat treatment *J Radiat Res* 2010-01-01 [PMID: 20173316] (ICC/IF, Human)

Nahas SA, Butch AW, Du L et al. Rapid flow cytometry-based structural maintenance of chromosomes 1 (SMC1) phosphorylation assay for identification of ataxia-telangiectasia homozygotes and heterozygotes. *Clin Chem* 2009-03-01 [PMID: 19147735]

Leung-Pineda, Van et al. Phosphorylation of Chk1 by ATR Is Antagonized by a Chk1-Regulated Protein Phosphatase 2A Circuit. 26: 7529-7538. 2006-01-01 [PMID: 17015476]

Du L, Kayali R, Bertoni C et al. Arginine-rich cell-penetrating peptide dramatically enhances AMO-mediated ATM aberrant splicing correction and enables delivery to brain and cerebellum *Hum Mol Genet* 2011-08-15 [PMID: 21576124]

Hu H, Du L, Nagabayashi G et al. ATM is down-regulated by N-Myc-regulated microRNA-421. *Proc Natl Acad Sci USA* 2010-01-01 [PMID: 20080624] (ELISA, WB, Human)



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 NB100-206

NBL1-16236	SMC1 Overexpression Lysate
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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