Product Datasheet

TPX2 Antibody - Azide and BSA Free
NB500-179

Unit Size: 0.1 ml

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

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Reviews: 1 Publications: 51

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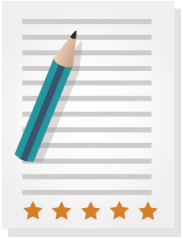
Updated 9/9/2025 v.20.1



NB500-179

TPX2 Antibody - Azide and BSA Free

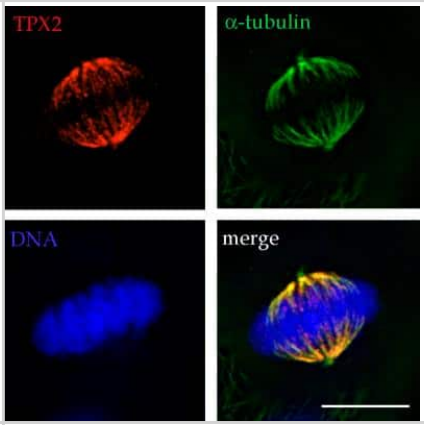
Product Information	
Unit Size	0.1 ml
Concentration	This product is unpurified. The exact concentration of antibody is not quantifiable.
Storage	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	No Preservative
Isotype	IgG
Purity	Unpurified
Buffer	Whole antisera
Target Molecular Weight	100 kDa

Product Description	
Description	Novus Biologicals Rabbit TPX2 Antibody - Azide and BSA Free (NB500-179) is a polyclonal antibody validated for use in WB, Flow, ICC/IF, Simple Western and IP. Anti-TPX2 Antibody: Cited in 46 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	22974
Gene Symbol	TPX2
Species	Human, Mouse, Rat, Porcine, Mammal
Immunogen	A recombinant segment of the C-terminal domain of human TPX2 [UniProt# Q9ULW0]

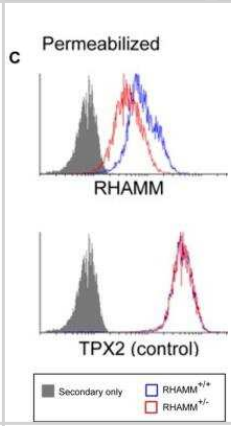
Product Application Details	
Applications	Western Blot, Simple Western, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation, Knockdown Validated
Recommended Dilutions	Western Blot 1:1000, Simple Western 1:250, Flow Cytometry reported in scientific literature (PMID 24019927), Immunocytochemistry/ Immunofluorescence 1:1000, Immunoprecipitation 1:10-1:100, Knockdown Validated reported in scientific literature (PMID 31586073)
Application Notes	In WB a band at approx. 100 kDa can be detected. In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. See Simple Western Antibody Database for Simple Western validation: Tested in HeLa lysate 0.2 mg/mL, separated by Size, antibody dilution of 1:250, apparent MW was 89 kDa. Separated by Size-Wes, Sally Sue/Peggy Sue.

Images

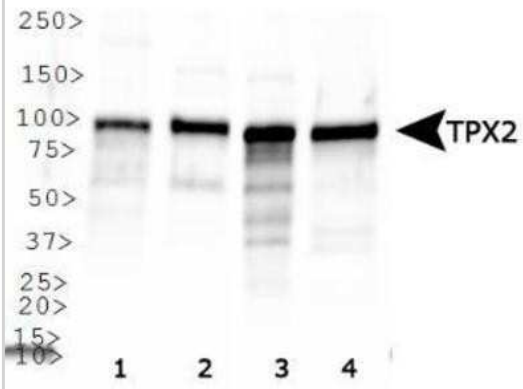
Immunocytochemistry/Immunofluorescence: TPX2 Antibody [NB500-179] - Analysis of TPX2 at the mitotic spindle microtubules and poles in a HeLa metaphase cell. ICC/IF image submitted by a verified customer review.



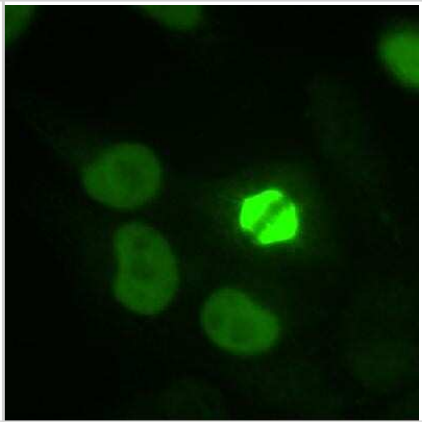
Flow Cytometry: TPX2 Antibody [NB500-179] - RHAMM is not a cell surface but an intracellular cytoskeletal protein in mouse embryonic stem (ES) cells. (C) Alcohol permeabilized mouse ES cells, however, were strongly positive for both RHAMM and the intracellular positive control protein TPX2 (right panel). Image collected and cropped by CiteAb from the following publication (//dx.plos.org/10.1371/journal.pone.0073548) licensed under a CC-BY license.



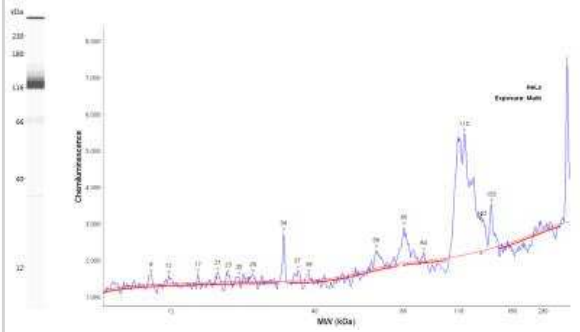
Western Blot: TPX2 Antibody [NB500-179] - Analysis of TPX2 expression in 1) HeLa, 2) Ntera2, 3) K-562 and 4) Raji whole cell lysates using NB500-179.



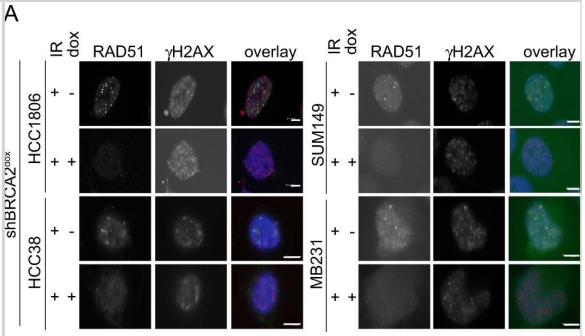
Immunocytochemistry/Immunofluorescence: TPX2 Antibody [NB500-179] - Staining of HeLa cells fixed in 3.5% paraformaldehyde using NB 500-179 (1:1,000). Nuclear staining during interphase and spindle staining during mitosis.



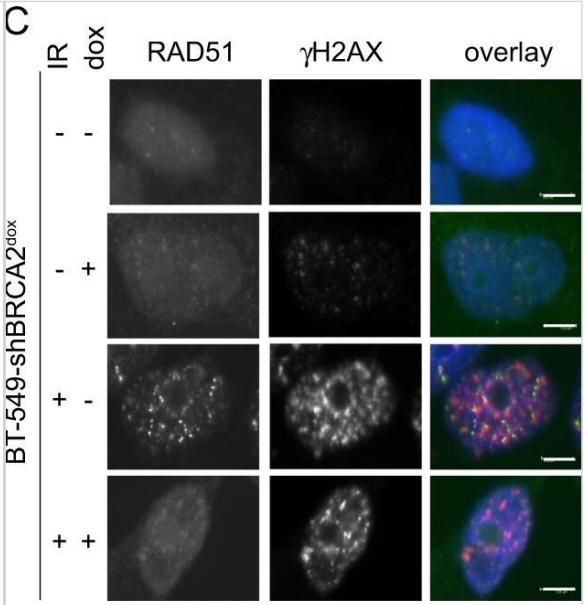
Simple Western: TPX2 Antibody [NB500-179] - Lane view shows a specific band for TPX2 using HeLa cell lysate and antibody at 1:250. Electropherogram image of corresponding Simple Western lane view. Image reported by internal validation.



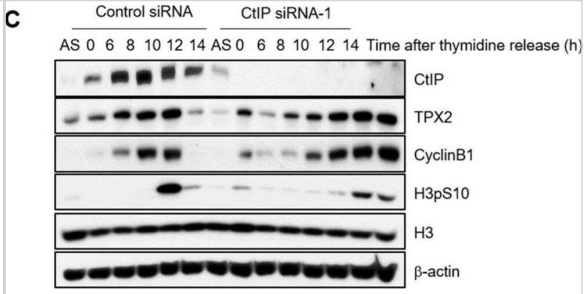
Immunocytochemistry/ Immunofluorescence: TPX2 Antibody [NB500-179] - Depletion of TPX2 or Aurora-A reduces cell viability of BRCA2-deficient breast cancer cells. a HCC1806-shBRCA2dox, HCC38-shBRCA2dox, SUM149-shBRCA2dox, & MB231-shBRCA2dox were grown on coverslips & treated with doxycycline (3 days) and/or irradiated (IR, 5 Gy) as indicated. Subsequently, cells were stained for RAD51 & γH2AX. Scale bars represent 5 µm. b Quantification of results from a. Percentages of cells with ≥5 RAD51 foci per nucleus are indicated (n ≥ 31). c Percentages of cell survival of doxycycline-treated cells vs untreated cells, transfected with indicated siRNAs. Unpaired two-tailed t tests were used to test for statistical significance (*p ≤ 0.05, **p ≤ 0.01, ***p ≤ 0.001). d BT-549 cells were transfected with siTPX2 or control siRNA (CTR). Cells were grown on coverslips for 3 days after which they were incubated with EdU conjugated to azide-Alexa 488 (10 µM) for 15 min. Subsequently, cells were fixed & stained for 53BP1 & γH2AX. Amounts of 53BP1 & γH2AX foci per cell of at least 30 EdU-positive cells were counted. Means & standard deviations are depicted. Mann–Whitney U tests were used to analyze statistical significance (*p ≤ 0.05, ** = p ≤ 0.01, ***p ≤ 0.001, ns not significant). e BT-549 cells were transfected as in d, irradiated (IR, 5 Gy), & fixated 0.5 or 6 h after irradiation. Amounts of 53BP1 & γH2AX foci per cell were counted. Means & standard deviations are depicted. Mann–Whitney U tests were used to analyze statistical significance (*p ≤ 0.05, **p ≤ 0.01, ***p ≤ 0.001, ns = not significant) Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/30177840), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



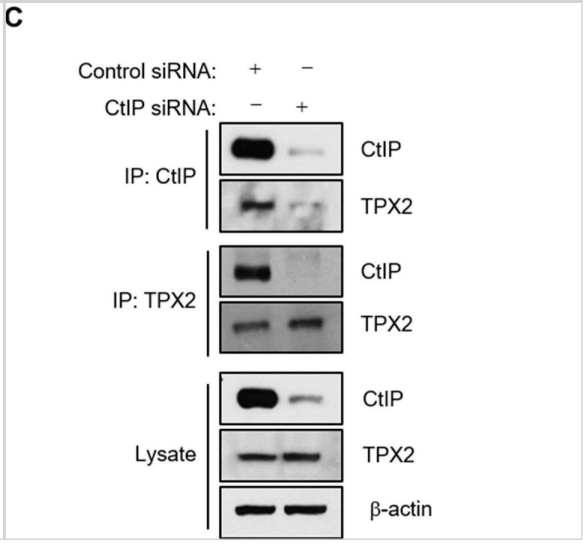
Immunocytochemistry/ Immunofluorescence: TPX2 Antibody [NB500-179] - TPX2 depletion preferentially affects cell viability in BRCA2-deficient cancer cells. a BT-549-shBRCA2dox cells were left untreated or were treated with doxycycline (2 or 4 days), & subsequently harvested for western blotting for BRCA2 & actin. b BT-549-shBRCA2dox cells were treated as in panel A, & mRNA expression levels of BRCA2 were analyzed relative to GAPDH using qRT-PCR. c BT-549-shBRCA2dox cells were grown on coverslips & treated with doxycycline (3 days) and/or irradiated (IR, 5 Gy) as indicated. At 3 h after irradiation, cells were fixed & analyzed for RAD51 & γH2AX foci formation. Scale bars represent 5 µm. d Percentages of cells with ≥5 RAD51 foci per nucleus are indicated. (n ≥ 50 per condition). e BT-549-shBRCA2dox cells were treated with doxycycline (3 days) & were subsequently transfected with indicated siRNAs. A total of 30,000 cells were plated 48 h following transfection. Viable cells were counted 5 days later. Percentages of cell survival of doxycycline-treated vs untreated cells are depicted. Error bars indicate standard deviations of two experimental replicates. Unpaired two-tailed t tests were used to test for statistical significance (*p ≤ 0.05, **p ≤ 0.01, ***p ≤ 0.001) Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/30177840), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



CtIP depletion causes improper progression of mitosis. (A) The progression of mitosis in HeLa cells was monitored by time-lapse microscopy. HeLa cells were transfected with control or CtIP-1 or siRNA. After 48 h, control and CtIP-depleted HeLa cells were seeded in 12-well plates and transfected with GFP-tagged histone H2B. Fluorescent images were obtained every 5 min starting at the stage of nuclear envelope breakdown. (B) A quantification of the time from nuclear envelope breakdown to anaphase onset in control cells and CtIP-depleted cells. Bars represent the mean +/- SD from three independent experiments. **, p < 0.01, compared to control cells. (C) Delayed mitosis progression in CtIP-depleted cells was confirmed by prolonged phosphorylation of histone H3 (pH3S10). Control and CtIP-depleted HeLa cells were synchronized with a double thymidine block to arrest at the G1/S boundary and released from this block for indicated times. Total proteins collected at the indicated times after release were analyzed by Western blotting using anti-pH3S10 antibody. Histone H3 antibody was used as a loading control. Image collected and cropped by CiteAb from the following open publication (https://www.mdpi.com/2073-4409/11/18/2814), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



CtIP interacts with TPX2. (A,B) CtIP coimmunoprecipitates with TPX2. Total cell lysates (1 mg) from HEK293T cells transfected with Flag-tagged full length CtIP and HA-tagged full length TPX2 were immunoprecipitated with anti-Flag (A) or anti-HA (B) antibodies. Immunoblotting was then performed with the indicated antibodies. (C) Total cell lysates from HEK293T cells transfected with control siRNA and CtIP siRNA were immunoprecipitated with anti-CtIP or anti-TPX2 antibodies. Immunoblotting was then performed with the indicated antibodies. (D) The cellular localization of CtIP and TPX2 during mitosis was monitored using Immunofluorescence microcopy. Asynchronous HeLa cells were fixed and stained with anti-CtIP and anti-TPX2 antibodies. Representative images show that CtIP colocalizes with TPX2 at the kinetochore from prometaphase through anaphase. Image collected and cropped by CiteAb from the following open publication (https://www.mdpi.com/2073-4409/11/18/2814), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Tidball, AM;Luo, J;Walker, JC;Yang, CY;Lee, K;Spencer, RC;Matthews, C;Feng, G;Hsu, PP;Lee, Y;Morgan, J;Childs, CJ;Eiken, MK;Walton, KD;Spence, JR; Lysophosphatidic acid and sphingosine-1-phosphate are apical polarity cues in multiple organoid systems Cell reports 2025-06-10 [PMID: 40503936]

Zillich L, Gasparotto M, Rossetti A et al. Capturing disease severity in LIS1-lissencephaly reveals proteostasis dysregulation in patient-derived forebrain organoids. Nature Communications 2025-10-13 [PMID: 41083500]

Oh W, Wu TT, Jeong SY et al. CtIP Regulates Mitotic Spindle Assembly by Modulating the TPX2-Aurora A Signaling Axis Cells 2022-09-08 [PMID: 36139389] (Immunocytochemistry/ Immunofluorescence, Human)

Wu J, Larreategui-Aparicio A, Lambers MLA et al. Microtubule nucleation from the fibrous corona by LIC1-pericentrin promotes chromosome congression Current Biology 2023-03-13 [PMID: 36720222] (Immunocytochemistry/ Immunofluorescence, Human)

Naso FD, Polverino F, Cilluffo D, Latini L et Al. AurkA/TPX2 co-overexpression in nontransformed cells promotes genome instability through induction of chromosome mis-segregation and attenuation of the p53 signalling pathway Biochim Biophys Acta Mol Basis Dis 2024-03-06 [PMID: 38447882]

Holder J, Miles JA, Batchelor M, Popple H et Al. CEP192 localises mitotic Aurora-A activity by priming its interaction with TPX2 EMBO J 2024-09-26 [PMID: 39327527]

Felix Orben, Katharina Lankes, Christian Schneeweis, Zonera Hassan, Hannah Jakubowsky, Lukas Krauß, Fabio Boniolo, Carolin Schneider, Arlett Schäfer, Janine Murr, Christoph Schlag, Bo Kong, Rupert Öllinger, Chengdong Wang, Georg Beyer, Ujjwal M. Mahajan, Yonggan Xue, Julia Mayerle, Roland M. Schmid, Bernhard Kuster, Roland Rad, Christian J. Braun, Matthias Wirth, Maximilian Reichert, Dieter Saur, Günter Schneider Epigenetic drug screening defines a PRMT5 inhibitor–sensitive pancreatic cancer subtype JCI Insight 2022-05-23 [PMID: 35439169]

Asteriti IA, Polverino F, Stagni V et al. AurkA nuclear localization is promoted by TPX2 and counteracted by protein degradation Life science alliance 2023-05-01 [PMID: 36797043] (WB, ICC/IF, Human)

Details:
Dilution used in ICC/IF 1:1,500 WB 1:1,000

Tang X, Wei W, Snowball JM et al. EMC3 regulates mesenchymal cell survival via control of the mitotic spindle assembly iScience 2022-11-01 [PMID: 36624844]

Wang R, Abdelbaki A, Ascanelli C et al. Selective targeting of non-centrosomal AURKA functions through use of a novel targeted protein degradation tool Commun Biol 2021-05-29 [PMID: 34050235]

Polverino F, Naso F, Palmerini V et al. The Aurora-A/TPX2 Axis Directs Spindle Orientation by Regulating NuMa and Microtubule Dynamics Curr Biol 2020-12-04 [PMID: 33275894]

Li XQ, Wang Y, Yang SJ et al. Melatonin protects against maternal diabetes-associated meiotic defects by maintaining mitochondrial function Free radical biology & medicine 2022-08-01 [PMID: 35792241] (FLOW, Mouse)

More publications at http://www.novusbio.com/NB500-179

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Products Related to NB500-179

NBL1-17236	TPX2 Overexpression Lysate
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

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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