

Product Datasheet

Borealin Antibody - BSA Free NBP1-89951

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

www.novusbio.com



technical@novusbio.com

Publications: 4

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NBP1-89951

Borealin Antibody - BSA Free

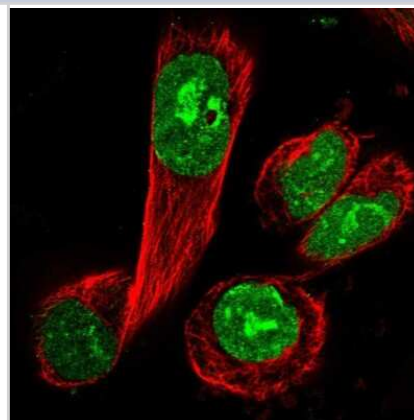
| Product Information | |
|----------------------|--|
| Unit Size | 0.1 ml |
| Concentration | Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services. |
| Storage | Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles. |
| Clonality | Polyclonal |
| Preservative | 0.02% Sodium Azide |
| Isotype | IgG |
| Purity | Affinity purified |
| Buffer | PBS (pH 7.2) and 40% Glycerol |

| Product Description | |
|---------------------|---|
| Description | Novus Biologicals Rabbit Borealin Antibody - BSA Free (NBP1-89951) is a polyclonal antibody validated for use in IHC, WB and ICC/IF. Anti-Borealin Antibody: Cited in 4 publications. All Novus Biologicals antibodies are covered by our 100% guarantee. |
| Host | Rabbit |
| Gene ID | 55143 |
| Gene Symbol | CDCA8 |
| Species | Human |
| Immunogen | This antibody was developed against Recombinant Protein corresponding to amino acids: PLKSAKTRKVIQVDEMIVEEEEEENERKNLQTARVKRCPPSKKRTQSIQGGKGK GKRSSRANTVTPAVGRLEVSMVKPTPGLTPRFDSR |

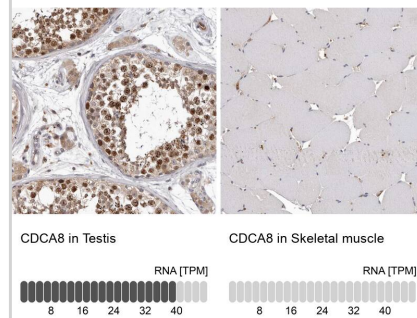
| Product Application Details | |
|------------------------------|--|
| Applications | Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/Immunofluorescence, Immunohistochemistry |
| Recommended Dilutions | Western Blot 0.04 - 0.4 ug/ml, Immunohistochemistry 1:50 - 1:200, Immunocytochemistry/ Immunofluorescence 0.25-2 ug/ml, Immunohistochemistry-Paraffin 1:50-1:200 |
| Application Notes | IHC-Paraffin, HIER pH 6 retrieval is recommended. ICC/IF, Fixation Permeabilization: Use PFA/Triton X-100. |

Images

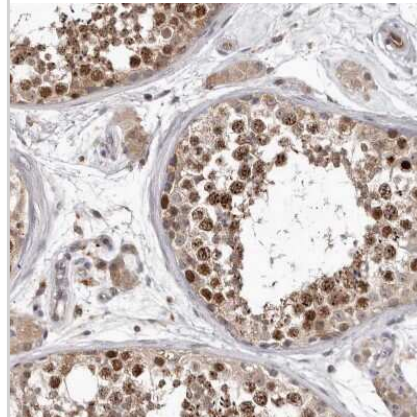
Immunocytochemistry/Immunofluorescence: Borealin Antibody [NBP1-89951] - Staining of human cell line U-251 MG shows localization to nucleus & nucleoli. Antibody staining is shown in green.



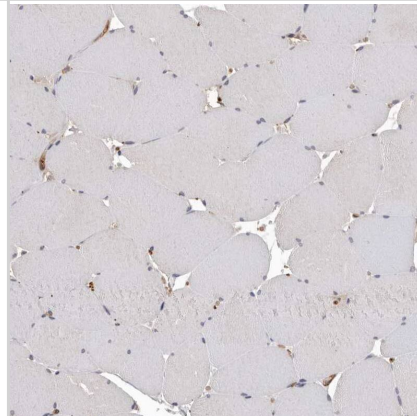
Analysis in human testis and skeletal muscle tissues using NBP1-89951 antibody. Corresponding CDCA8 RNA-seq data are presented for the same tissues.



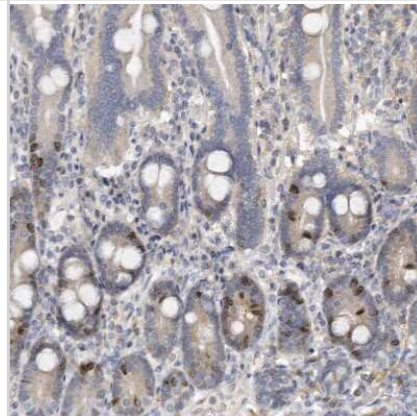
Immunohistochemistry-Paraffin: Borealin Antibody [NBP1-89951] - Staining of human testis shows moderate to strong nuclear positivity in cells in seminiferous ducts.



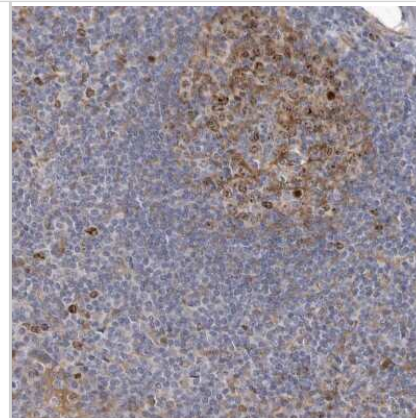
Staining of human skeletal muscle shows no positivity in myocytes as expected.



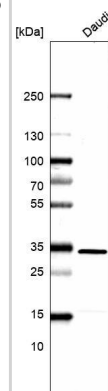
Immunohistochemistry-Paraffin: Borealin Antibody [NBP1-89951] - Staining of human duodenum shows strong nuclear positivity in a subset of glandular cells.



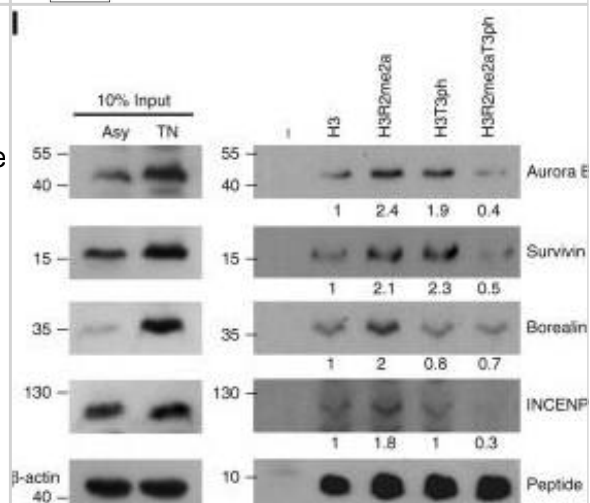
Immunohistochemistry-Paraffin: Borealin Antibody [NBP1-89951] - Staining of human lymphoid tissues shows moderate nuclear positivity in germinal center cells.



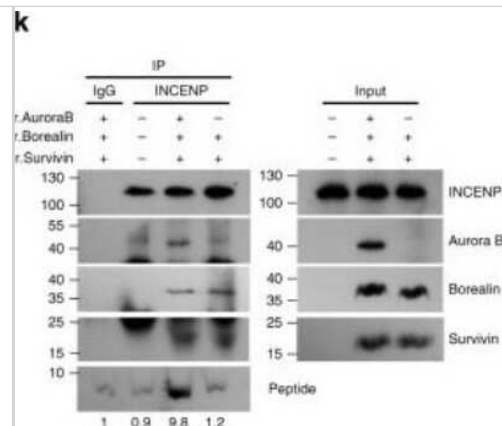
Analysis in control (vector only transfected HEK293T lysate) and CDCA8 over-expression lysate (Co-expressed with a C-terminal myc-DDK tag (~3.1 kDa) in mammalian HEK293T cells).



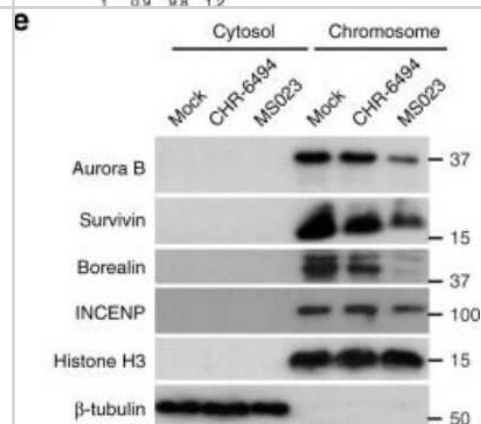
Western Blot: Borealin Antibody [NBP1-89951] - Aurora B preferentially binds to H3R2me2a & recruits CPC components. a The amino acid sequences of modified histone H3 peptides. b In vitro Haspin kinase assay w/ 21-aa peptide. c In vitro Aurora B kinase assay w/ 21-aa peptide for phosphorylation. d In vitro PRMT6 methyltransferase assay. e -h The cells treated w/ siPRMT6, PRMT6 inhibitor MS023, or the Haspin kinase inhibitor CHR-6494. The intensities of H3R2me2a (f) & H3T3ph (h) in chromosome arm & centromere analyzed by IF microscopy of nocodazole-arrested HeLa chromosome spreads & plotted (n = 100 chromosomes from three independent experiments). i After transfection of indicated plasmids, HeLa cells treated w/ a Haspin kinase inhibitor, CHR-6494, for 5 h & the intensity of CPC components analyzed for 100 centromeres from three independent experiments. j Recombinant CPC proteins incubated w/ biotinylated histone peptides & pulled down w/ streptavidin-agarose beads, & the binding visualized by immunoblotting. k Lysates of TN-arrested Aurora B-depleted cells supplemented w/ recombinant Survivin & Borealin proteins w/ or w/out recombinant Aurora B protein. The lysates incubated w/ antibodies against INCENP & the H3R2me2a peptide, & pulldown conducted w/ agarose A beads. The binding visualized by immunoblotting. The asterisk denotes the light chain of antibodies. l Lysates of TN-arrested mitotic HeLa cells incubated w/ biotinylated histone peptides & pulled down w/ streptavidin-agarose beads, & the binding visualized by immunoblotting. Relative band intensities of band measured w/ image processing software (Image Studio ver5.0). Error bars, SEMs. Scale bars, 5 μ m. Source data are provided as a Source Data file. (Student's t-test *p < 0.01). Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/32001712>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



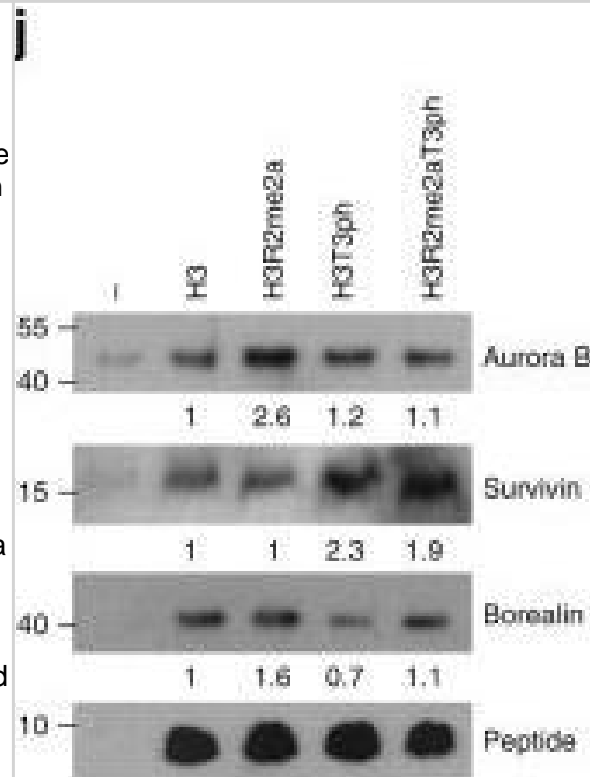
Borealin-Antibody-Western-Blot-NBP1-89951-img0018.jpg



Borealin-Antibody-Western-Blot-NBP1-89951-img0017.jpg



Western Blot: Borealin Antibody [NBP1-89951] - Aurora B preferentially binds to H3R2me2a & recruits CPC components. a The amino acid sequences of modified histone H3 peptides. b In vitro Haspin kinase assay w/ 21-aa peptide. c In vitro Aurora B kinase assay w/ 21-aa peptide for phosphorylation. d In vitro PRMT6 methyltransferase assay. e -h The cells treated w/ siPRMT6, PRMT6 inhibitor MS023, or the Haspin kinase inhibitor CHR-6494. The intensities of H3R2me2a (f) & H3T3ph (h) in chromosome arm & centromere analyzed by IF microscopy of nocodazole-arrested HeLa chromosome spreads & plotted (n = 100 chromosomes from three independent experiments). i After transfection of indicated plasmids, HeLa cells treated w/ a Haspin kinase inhibitor, CHR-6494, for 5 h & the intensity of CPC components analyzed for 100 centromeres from three independent experiments. j Recombinant CPC proteins incubated w/ biotinylated histone peptides & pulled down w/ streptavidin-agarose beads, & the binding visualized by immunoblotting. k Lysates of TN-arrested Aurora B-depleted cells supplemented w/ recombinant Survivin & Borealin proteins w/ or w/out recombinant Aurora B protein. The lysates incubated w/ antibodies against INCENP & the H3R2me2a peptide, & pulldown conducted w/ agarose A beads. The binding visualized by immunoblotting. The asterisk denotes the light chain of antibodies. l Lysates of TN-arrested mitotic HeLa cells incubated w/ biotinylated histone peptides & pulled down w/ streptavidin-agarose beads, & the binding visualized by immunoblotting. Relative band intensities of band measured w/ image processing software (Image Studio ver5.0). Error bars, SEMs. Scale bars, 5 μ m. Source data are provided as a Source Data file. (Student's t-test *p < 0.01). Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/32001712>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Xianghua Zhang, Ji Eun Park, Eun Ho Kim, Jihee Hong, Ki-Tae Hwang, Young A. Kim, Chang-Young Jang Wip1 controls the translocation of the chromosomal passenger complex to the central spindle for faithful mitotic exit Cellular and Molecular Life Sciences: CMLS 2021-03-01 [PMID: 33067654]

Hong J, Gwon D, Jang C Ginsenoside Rg1 suppresses cancer cell proliferation through perturbing mitotic progression J Ginseng Res 2022-05-23 [PMID: 35600766]

Park M, Hwang JW, Cho Y et al. A novel synthetic microtubule inhibitor exerts antiproliferative effects in multidrug resistant cancer cells and cancer stem cells Scientific reports 2021-05-24 [PMID: 34031528] (Human)

Kim S, Kim NH, Park JE et al. PRMT6-mediated H3R2me2a guides Aurora B to chromosome arms for proper chromosome segregation Nat Commun 2020-01-30 [PMID: 32001712] (WB, ICC/IF, Human)





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Products Related to NBP1-89951

| | |
|---------------|---|
| NBP1-89951PEP | Borealin Recombinant Protein Antigen |
| 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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