

Product Datasheet

CD133 Antibody - BSA Free

NB120-16518

Unit Size: 0.1 mg

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

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CD133 Antibody - BSA Free

Product Information	
Unit Size	0.1 mg
Concentration	1.0 mg/ml
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	Immunogen affinity purified
Buffer	PBS

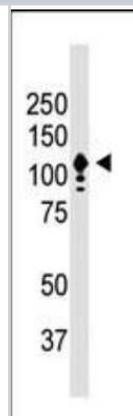
Product Description	
Description	Novus Biologicals Rabbit CD133 Antibody - BSA Free (NB120-16518) is a polyclonal antibody validated for use in IHC, WB, ELISA, Flow, ICC/IF and ChIP. Anti-CD133 Antibody: Cited in 41 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	8842
Gene Symbol	PROM1
Species	Human, Mouse, Rat, Porcine
Reactivity Notes	porcine reactivity reported in scientific literature (PMID: 29352176).
Marker	Stem Cell Marker
Specificity/Sensitivity	CD133 - Hematopoietic Stem Cell Marker
Immunogen	Synthetic peptide corresponding to a C-terminal region of CD133 (within amino acids 750-865).

Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, ELISA, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Chromatin Immunoprecipitation (ChIP)
Recommended Dilutions	Western Blot 1:500-1:1000, Flow Cytometry 1:10-1:1000, ELISA 1:1000, Immunohistochemistry 1:100-1:250, Immunocytochemistry/ Immunofluorescence 1:100, Immunohistochemistry-Paraffin 1:100-1:250, Immunohistochemistry-Frozen, Chromatin Immunoprecipitation (ChIP)
Application Notes	Detects a band of approximately 120 kDa (predicted molecular weight: 97 kDa). IHC: Citrate buffer antigen retrieval required. ICC/IF: Fix with 3% paraformaldehyde for 20 min at RT. Optimal dilutions/concentrations should be determined by the end user. Use in IHC-Frozen reported in scientific literature (PMID: 29352176).

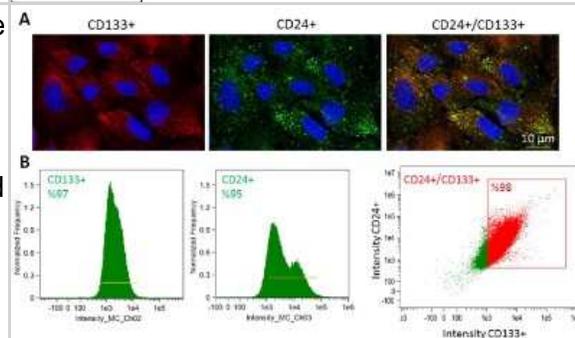


Images

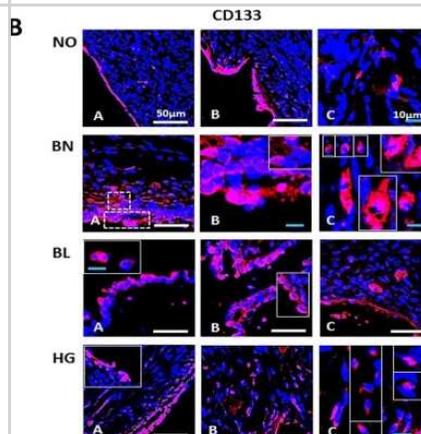
Western Blot: CD133 Antibody - BSA Free [NB120-16518] - Predicted band size : 97 kDa recognizes 97 kDa human CD133 in Y79 cells. Band is at ~120 kDa due to protein glycosylation.



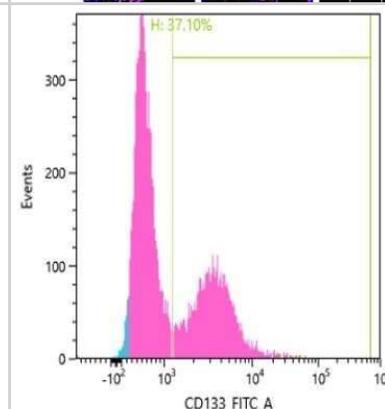
Immunocytochemistry/Immunofluorescence: CD133 Antibody - BSA Free [NB120-16518] - Characterization of Scattered tubular-like cells (STCs) isolated from pig kidneys. A) Representative immunofluorescence staining (original magnification 40X) for the STC surface markers CD133 NB120-16518G (red) and CD24 (green) in isolated swine STCs. B) Flow cytometry analysis of isolated STCs showing that 97% of cells expressed CD133, 95% CD24, and 98% were double-positive for CD133 and CD24 (n = 3 each). Image collected and cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/31614781/>) licensed under a CC-BY license.



Immunohistochemistry: CD133 Antibody - BSA Free [NB120-16518] - Immunostaining for CD133 (NB120-16518) in normal ovarian and tumor tissue sections. Staining of CD133 in OSE layer (A, B) as well as cortex (C) reveals specific CD133+ cells with relatively higher cell numbers in BL and HG. Area within dotted lines in BN OSE (A) are magnified in (B) while elliptical/spindle shaped CD133+ cells in cortex from various fields were represented in the composite image in (C) of BN and HG. Large CD133+ cells in cortex were also observed. White scale bar = 50 μ m; blue scale bar = 10 μ m. Secondary antibody employed was conjugated with Alexa fluor 568 and tissue sections were counterstained with nucleus specific dye DAPI. Image collected and cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30121075/>) licensed under a CC-BY license.



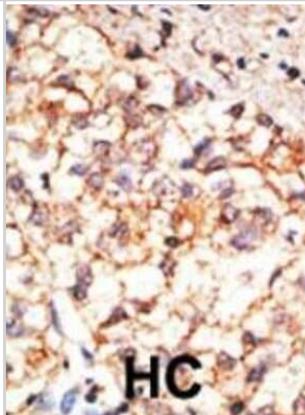
Flow Cytometry: CD133 Antibody - BSA Free [NB120-16518] - Flow Cytometry: CD133 Antibody [DyLight 488] [NB120-16518G] - Flow Cytometry: CD133 Antibody (DyLight488) [NB120-16518G] - Rat bone marrow cells were stained with CD133 (1:100) antibody (20 minutes at 4C), fixed, and then analyzed. Image using the DyLight 488 form of this antibody.



Chromatin Immunoprecipitation: CD133 Antibody - BSA Free [NB120-16518] - [NB 120-16518] - Staining CD133 in Bone Marrow Mononuclear Cells by Immunofluorescence.

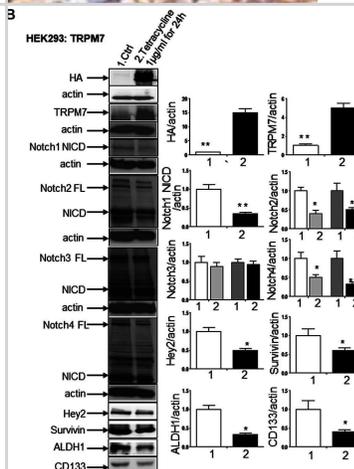


Immunohistochemistry-Paraffin: CD133 Antibody - BSA Free [NB120-16518] - Staining of CD133 in human hepatocarcinoma (HC) tissue. NB120-16518 was peroxidase-conjugated to the secondary antibody, followed by AEC staining.

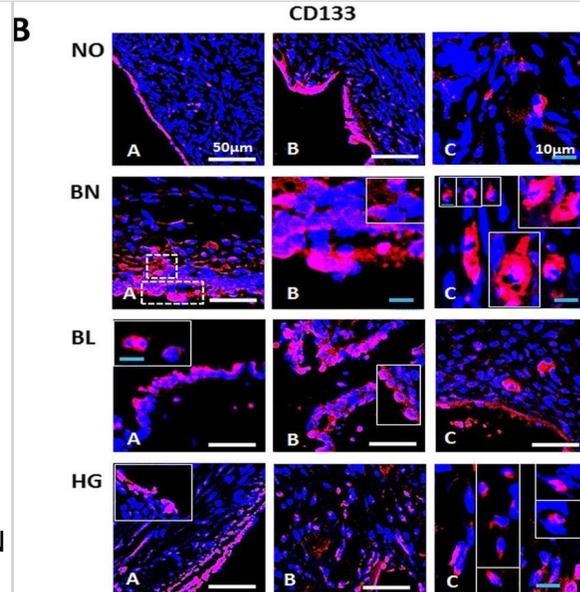


TRPM7 is expressed in GBM and positively correlates with the activation of Notch1, and the upregulation of TRPM7 activates Notch1 signaling.

(A) The U87MG cells were transfected with (A) wild-type human TRPM7 (M7-wt); (B) two α -kinase-inactive mutants, " α -kinase-dead" point mutation (K1648R, or M7-KR) and α -kinase deleted mutant (M7-DK) along with controls followed by assaying protein expression of TRPM7, Notch1, Notch2, Notch3, and Notch4 by Western blot. (B) HEK-293 cells were transfected with a pcDNA4/TO plasmid that allowed tetracycline-inducible protein expression of TRPM7-wt tagged with HA. Then, protein expression of exogenous, endogenous TRPM7, Notch1, Notch2, Notch3, Notch4, and Notch target genes Hey2 and Survivin were determined by Western blot. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/33381038>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunostaining for CD133 in normal ovarian and tumor tissue sections: [A] Mouse monoclonal anti-CD133 antibody was localized in both OSE (A, B) and ovarian cortex (C, D) by immunohistochemistry. Region between dotted boxes in A, C is magnified in B, D respectively. Polar staining of CD133 is obvious in OSE layer especially in NO, BL and HG ovaries. BL ovaries exhibit multi-layered OSE. Cortex comprised of CD133+ cells arranged in clusters with elongated/spindle shaped morphology in NO and BN ovaries. BL ovarian cortex harbours single spherical cell clusters distributed throughout. HG comprised more of large CD133+ cells in OSE and few clusters in the cortex per field focussed. Insets include magnified images of cells from different fields. Scale bar = 100 μm (A, C) and 25 μm (B, D) respectively. [B] Immunofluorescence staining of CD133 in OSE layer (A, B) as well as cortex (C) reveals specific CD133+ cells with relatively higher cell numbers in BL and HG. Area within dotted lines in BN OSE (A) are magnified in (B) while elliptical/spindle shaped CD133+ cells in cortex from various fields were represented in the composite image in (C) of BN and HG. Large CD133+ cells in cortex were also observed. White scale bar = 50 μm ; blue scale bar = 10 μm . Secondary antibody employed was conjugated with Alexa fluor 568 and tissue sections were counterstained with nucleus specific dye DAPI Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/30121075>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Song C, Xue J, Song W et al. KMT2D/ZNF460-induced COL9A1-mediated extracellular matrix stiffness maintains the cancer stem cell pool to promote colorectal cancer progression *Cell Biology and Toxicology* 2025-07-01 [PMID: 40591048]

Witte KE, Pfitzenmaier J, Storm J et al. Analysis of Several Pathways for Efficient Killing of Prostate Cancer Stem Cells: A Central Role of NF- κ B RELA *International Journal of Molecular Sciences* 2021-08-18 [PMID: 34445612] (Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Rat)

Iqbal F, Johnston A, Wyse B et al. Combination human umbilical cord perivascular and endothelial colony forming cell therapy for ischemic cardiac injury *npj Regenerative Medicine* 2023-08-25 [PMID: 37626067] (Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Rat)

Ma D, Hou L, Xia H et al. PER2 inhibits proliferation and stemness of glioma stem cells via the Wnt/ β catenin signaling pathway *Oncology Reports* 2020-05-27 [PMID: 32468039] (Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Rat)

Witte KE, Hertel O, Windmüller BA et al. Nanopore Sequencing Reveals Global Transcriptome Signatures of Mitochondrial and Ribosomal Gene Expressions in Various Human Cancer Stem-like Cell Populations *Cancers (Basel)* 2021-03-06 [PMID: 33800955] (Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Rat)

JSA Schulte Am, BA Windmüller, J Hanewinkel, J Storm, C Förster, L Wilkens, M Krüger, B Kaltschmid, C Kaltschmid Isolation and Characterization of Two Novel Colorectal Cancer Cell Lines, Containing a Subpopulation with Potential Stem-Like Properties: Treatment Options by MYC/NMYC Inhibition *Cancers (Basel)*, 2020-09-10;12(9):. 2020-09-10 [PMID: 32927768] (Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Rat)

Balboni A, D'Angelo C, Collura N, Brusco S, Di Berardino C, Targa A, Massoti B, Mastrangelo E, Milani M, Seneci P, Broccoli V, Muzio L, Galli R, Menegon A. Acid-sensing ion channel 3 is a new potential therapeutic target for the control of glioblastoma cancer stem cells growth *Sci Rep* 2024-09-03 [PMID: 39227705]

Wei Q, Liu Z, Zhu J et al. The Ubiquitin E3 Ligase FBXO33 Suppresses Stem Cell-Like Properties and Metastasis in Non-Small-Cell Lung Cancer by Promoting Ubiquitination and Degradation of Myc *Front Biosci (Landmark Ed)* 2024-08-29 [PMID: 39206900]

Filidou E, Kandilogiannakis L, Tarapatzi G et al. A Simplified and Effective Approach for the Isolation of Small Pluripotent Stem Cells Derived from Human Peripheral Blood *Biomedicines* 2023-03-05 [PMID: 36979766] (Immunocytochemistry/ Immunofluorescence, Human)

Wu MH, Wu K, Zhu YB et al. Baicalin Antagonizes Prostate Cancer Stemness via Inhibiting Notch1/NF- κ B Signaling Pathway *Chinese journal of integrative medicine* 2023-06-26 [PMID: 37357241]

Tarek Niemann, Jonas Joneleit, Jonathan Storm, Tom Nacke, Dirk Wähnert, Christian Kaltschmidt, Thomas Vordemvenne, Barbara Kaltschmidt, Kin Hing William Lau, Tong-Chuan He Analyzing Sex-Specific Dimorphism in Human Skeletal Stem Cells *Cells* 2023-11-22 [PMID: 38067111]

Andreas M. Bapst, Thomas Knöpfel, Karen A. Nolan, Faik Imeri, Claus D. Schuh, Andrew M. Hall, Jia Guo, Dörthe M. Katschinski, Roland H. Wenger Neurogenic and pericytic plasticity of conditionally immortalized cells derived from renal erythropoietin-producing cells *Journal of Cellular Physiology* 2022-01-10 [PMID: 35014036]

More publications at <http://www.novusbio.com/NB120-16518>





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

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