Product Datasheet

Nanog Antibody (5A10) - BSA Free
NBP1-04320

Unit Size: 0.1 ml

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

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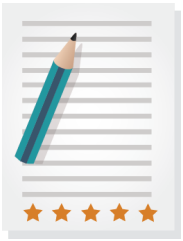
Updated 10/23/2024 v.20.1



NBP1-04320

Nanog Antibody (5A10) - BSA Free

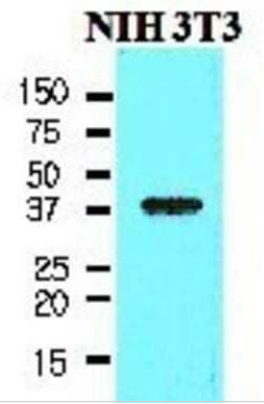
Product Information	
Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	5A10
Preservative	0.02% Sodium Azide
Isotype	IgG2a Kappa
Purity	Protein G purified
Buffer	PBS (pH 7.4), 10% Glycerol
Target Molecular Weight	35 kDa

Product Description	
Host	Mouse
Gene ID	79923
Gene Symbol	NANOG
Species	Human
Marker	Embryonic Stem Cell Marker
Immunogen	Recombinant human Nanog (1-154aa) purified from E. coli (NP_079141).

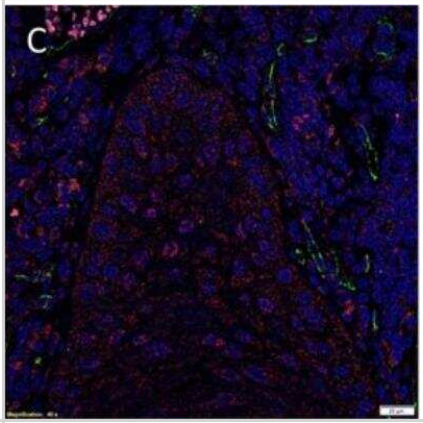
Product Application Details	
Applications	Western Blot, ELISA, Flow Cytometry, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 1:500-1:1000, Flow Cytometry, ELISA 1:100-1:2000, Immunohistochemistry 1:10-1:500, Immunohistochemistry-Paraffin 1:50-1:100

Images

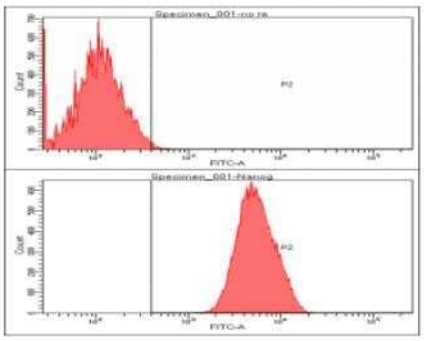
Western Blot: Nanog Antibody (5A10) [NBP1-04320] - The cell lysates of NIH3T3 (35ug) were resolved by SDS-PAGE, transferred to NC membrane and probed with anti-human Nanog (1:500). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.



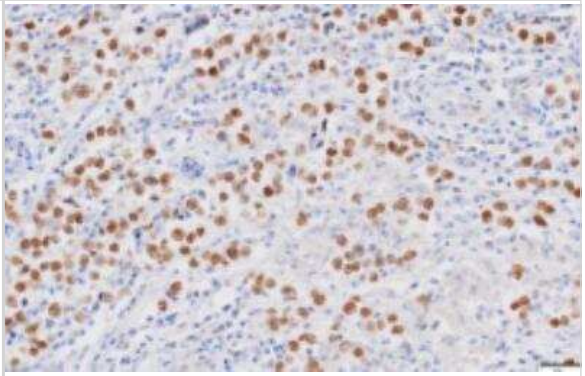
Immunohistochemistry: Nanog Antibody (5A10) [NBP1-04320] - Nuclear expression of NANOG [(C), red] was demonstrated on the endothelium of the microvessels which expressed CD34 [(C), green] within stroma. The NANOG+ cells [(C), red] that do not express CD34 were seen within the tumor nests and the stroma. Image collected and cropped by CiteAb from the following publication (journal.frontiersin.org/article/10.3389/fsurg.2016.00046), licensed under a CC-BY license.



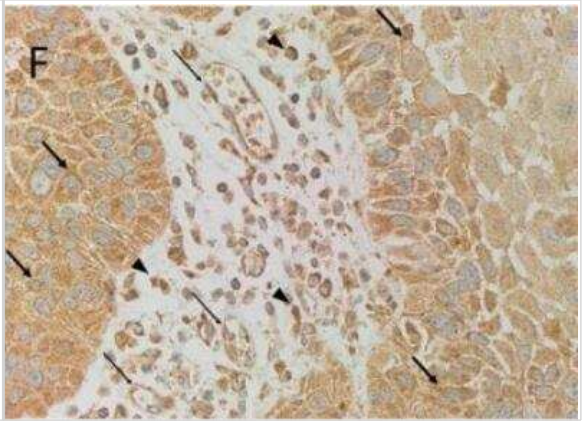
Flow Cytometry: Nanog Antibody (5A10) [NBP1-04320] - Flow cytometry analysis of Nanog in Hep3B cell line, staining at 2-5ug for 1x106cells. The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate.



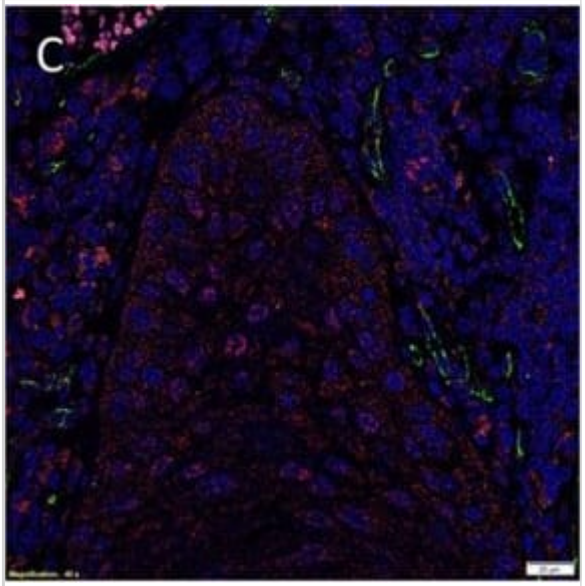
Immunohistochemistry-Paraffin: Nanog Antibody (5A10) [NBP1-04320] - Human seminoma tissue were incubated with anti-human Nanog (1:50) for 2 hours at room temperature. Antigen retrieval was performed in 0.1M sodium citrate buffer and detected using Diaminobenzidine (DAB)



Immunohistochemistry: Nanog Antibody (5A10) [NBP1-04320] - NANOG was seen in cells within the tumor nests [(F), brown, thick arrows] and the stroma [(F), brown, arrowheads], and the endothelium of the microvessels within the stroma [(F), brown, thin arrows]. Image collected and cropped by CiteAb from the following publication (journal.frontiersin.org/article/10.3389/fsurg.2016.00046), licensed under a CC-BY license.



Immunocytochemistry/ Immunofluorescence: Nanog Antibody (5A10) - BSA Free [NBP1-04320] - Representative IF IHC-stained sections of MDBMSCC demonstrating the expression of pSTAT3 [(A), red] & EMA [(A), green] by cells within the tumor nests. There was a CSC subpopulation remonstrating nuclear co-expression of STAT3 [(B), red] & CD34 [(B), green], appearing as orange, on the endothelium of the microvessels within the stroma; & another subpopulation staining only positively for pSTAT3 within the stroma [(B), red]. Nuclear expression of NANOG [(C), red] was demonstrated on the endothelium of the microvessels which expressed CD34 [(C), green] within stroma. The NANOG+ cells [(C), red] that do not express CD34 were seen within the tumor nests & the stroma. SOX2 [(D), red] was also expressed by cells within tumor nests & the stroma, & the endothelium of the microvessels expressing CD34 [(D), green]. Nuclear expression of both SOX2 [(E), red] & SALL4 [(E), green], appearing as orange, was seen on the cells within the tumor nests & the stroma. Expression of both SOX2 [(F), red] & OCT4 [(F), green], appearing as orange, was seen on cells within the tumor nests & the stroma, & the endothelium of the microvessels within the stroma. pSTAT3 [(G), red] & membranous staining CD44 [(G), green] were co-expressed by cells within the tumor nests. Scale bars: 20 µm. Image collected & cropped by CiteAb from the following publication (http://journal.frontiersin.org/Article/10.3389/fsurg.2016.00046/abstract), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Yadav A, Kumar B, Teknos TN, Kumar P. Bazedoxifene enhances the anti-tumor effects of cisplatin and radiation treatment by blocking IL-6 signaling in head and neck cancer. Oncotarget. [PMID: 28978005] (WB, Human)

Gong W, Sun B, Sun H et al. Nodal signaling activates the Smad2/3 pathway to regulate stem cell-like properties in breast cancer cells. Am J Cancer Res. 2017-04-12 [PMID: 28401007] (WB, Human)

Koh SP, On N, Brasch HD et al. Embryonic Stem Cell-like Population in Dupuytren's Disease. Plast Reconstr Surg Glob Open. 2016-11-01 [PMID: 27975007] (IF/IHC, Human)

Yu HH, Featherston T, Tan ST et al. Characterization of Cancer Stem Cells in Moderately Differentiated Buccal Mucosal Squamous Cell Carcinoma. Front Surg. 2016-08-17 [PMID: 27532037] (IF/IHC, Human)

Kumar B, Yadav A, Lang JC et al. Suberoylanilide hydroxamic acid (SAHA) reverses chemoresistance in head and neck cancer cells by targeting cancer stem cells via the downregulation of nanog. Genes Cancer. 2015-03-01 [PMID: 26000099] (WB, Human)

Details:
Nanog antibody was used for WB application on lysates of human head and neck squamous cell carcinoma cell line CAL27 and UD-SCC-2 cell line as well as their cisplatin-resistant variants namely CAL27-CisR and UD-SCC-2-CisR respectively (Figure 3E-F). WB also performed on CAL27-CisR and UD-SCC-2-CisR cell that were subjected or not to HDAC1 / HDAC2 knocked down using siRNA (Figure 4A-B), and on CAL27-CisR and UD-SCC-2-CisR cells treated or not with Suberoylanilide Hydroxamic Acid /SAHA, an HDAC inhibitor (Figure 6C-D).

Lin F, Prichard J, Bitting AK et al. Geisinger Immunohistochemical Antibodies and Staining Protocols Handbook of Practical Immunohistochemistry. 2015-01-01 (IHC-P, Human)

Moretti A, Bellin M, Jung CB et al. Mouse and human induced pluripotent stem cells as a source for multipotent Isl1+ cardiovascular progenitors. FASEB J 2009-01-01 [PMID: 19850773]

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NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-96981-0.5mg	Mouse IgG2a Kappa Isotype Control (M2AK)
NBP2-13177PEP	Nanog Antibody Blocking Peptide

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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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