

Anti-Homeobox protein NANOG NANOG Antibody

Catalog Number: A00153

About NANOG

Expression of NANOG is required for the maintenance of pluripotency in epiblast and embryonic stem (ES) cells as well as for the ability to maintain ES self-renewal independently of LIF/Stat3. The role of NANOG in embryonic development suggested that it might be useful in the creation of stem cells that might be useful in cell replacement therapies in the treatment of several degenerative diseases. Artificial stem cells, termed induced pluripotent stem (iPS) cells, can be created by expressing POU5F1 (also known as Oct-4), another germline-specific transcription factor, and the transcription factors Sox2, Klf4 and Lin28 along with c-Myc in mouse fibroblasts. More recently, experiments have demonstrated that iPS cells could be generated using expression plasmids expressing NANOG, Sox2, Klf4 and c-Myc, eliminating the need for virus introduction, thereby addressing a safety concern for potential use of iPS cells in regenerative medicine.

Overview

Product Name	Anti-Homeobox protein NANOG NANOG Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Homeobox protein NANOG NANOG Antibody (Catalog # A00153). Tested in ELISA, WB, IHC-P, ICC/IF applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, IF, IHC-P, ICC, WB
Clonality	Polyclonal
Formulation	NANOG Antibody is supplied in PBS containing 0.02% sodium azide.
Storage Instructions	NANOG antibody can be stored at 4°C for three months and -20°C, stable for up to one year. Avoid repeated freeze-thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Host	Rabbit
Uniprot ID	Q9H9S0

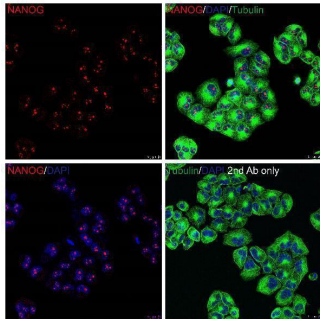
Technical Details

Immunogen	NANOG antibody was raised against a 19 amino acid synthetic peptide near the center of human NANOG. The immunogen is located within amino acids 130 - 180 of NANOG.
Predicted Reactive Species	Bovine, Chicken
Isotype	IgG
Form	Liquid
Concentration	1 mg/mL
Purification	NANOG Antibody is affinity chromatography purified via peptide column.

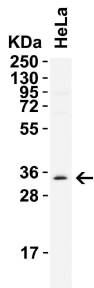
Suggested Dilutions

WB: 1-2 ug/mL; ICC/IF: 20 ug/mL; IHC: 1-5 ug/mL. Antibody validated: Western Blot in human, mouse and rat samples; Immunohistochemistry in human, mouse and rat samples and Immunofluorescence in human samples. All other applications and species not yet tested.

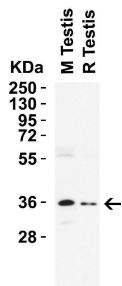
Anti-Homeobox protein NANOG NANOG Antibody (A00153) Images



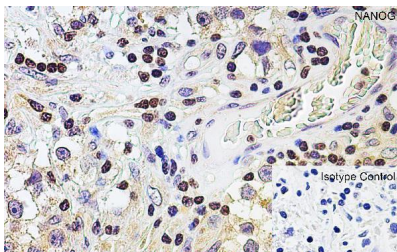
Immunofluorescence Validation of NANOG in HeLa Cells
Immunofluorescent analysis of PFA-fixed HeLa cells labeling NANOG with A00153 at 20 ug/mL, followed by goat anti-rabbit IgG secondary antibody at 1/1000 dilution (red) and DAPI staining (blue). Alpha tubulin was stained with anti-alpha tubulin antibody following by goat anti-mouse IgG secondary antibody (green). Images were captured with confocal microscopy.



WB Validation in HeLa Cells Loading: 15 ug of lysate.
Antibodies: NANOG A00153, 2 ug/mL , 1 h incubation at RT in 8% NFDm/TBST. Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10,000 dilution.

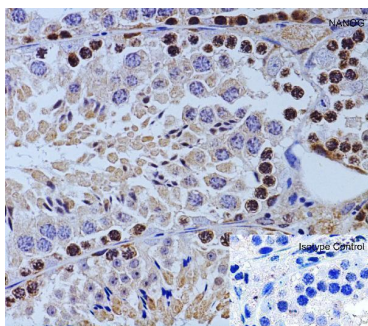


Western Blot Validation in Mouse and Rat Testis Loading: 15 ug of lysates per lane. Antibodies: NANOG A00153, 2 ug/mL, 1h incubation at RT in 8% NFDm/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10,000 dilution.

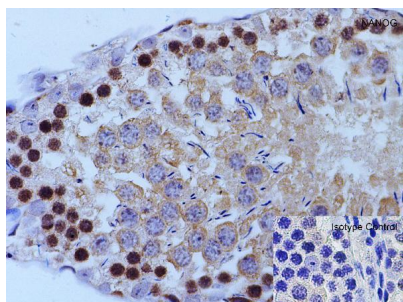


Immunohistochemistry Validation of NANOG in Human Testis
Immunohistochemical analysis of paraffin-embedded human testis tissue using anti-NANOG antibody (A00153) at 5 ug/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.

Immunohistochemistry Validation of NANOG in Mouse Testis
Immunohistochemical analysis of paraffin-embedded mouse testis tissue using anti-NANOG antibody (A00153) at 2 ug/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary.



Counter stained with Hematoxylin.



Immunohistochemistry Validation of NANOG in Rat Testis
Immunohistochemical analysis of paraffin-embedded rat testis tissue using anti-NANOG antibody (A00153) at 2 ug/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.

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