

Datasheet for 600-401-H03**NANOG Antibody****Overview**

Description:	Anti-NANOG (RABBIT) Antibody - 600-401-H03
Item No.:	600-401-H03
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	NANOG antibody detects human 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. Anti-NANOG antibodies are ideal for investigators involved in stem cell research.
Synonyms:	NANOG homeobox, Homeobox transcription factor Nanog, hNanog, Homeobox protein NANOG
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	NANOG
Reactivity:	Human, Mouse, Rat

Immunogen Type:	Conjugated Peptide
Immunogen:	NANOG Antibody was produced from whole rabbit serum prepared by repeated immunizations with a peptide corresponding to an internal region of human NANOG.
Purity/Specificity:	Anti-NANOG Antibody was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest cross-reactivity with NANOG with Human, Rat and Mouse based on 100% homology with the immunizing sequence. Cross-reactivity with NANOG from other sources has not been determined.
Relevant Links:	• NCBI - NP_001284627.1 • UniProtKB - Q9H9S0 • GenelD - 79923

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-NANOG Antibody is tested for use in E, WB, IF, and IHC. Expect a band approximately ~34.6 kDa on specific lysates. Western Blot, Immunohistochemistry, and Immunofluorescence tested in human samples. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
IF:	20µg/mL
IHC:	5µg/mL
WB:	1-2 ug/mL

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

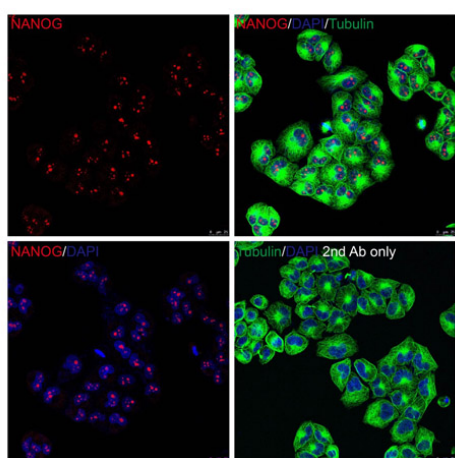
Shipping & Handling

Shipping Condition:	Dry Ice
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Storage Condition: Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Expiration: Expiration date is one (1) year from date of receipt.

Images



Immunofluorescence Microscopy

Immunofluorescence Validation of NANOG.

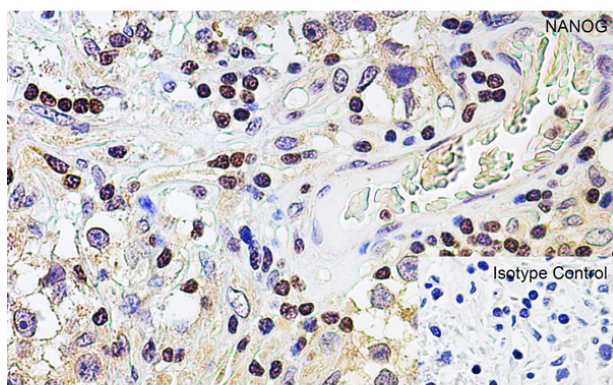
Cell: HeLa cells.

Fixation: PFA-fixed.

Primary Antibody: Anti-NANOG at 20 µg/mL.

Secondary: 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.



Immunohistochemistry

Immunohistochemistry of NANOG.

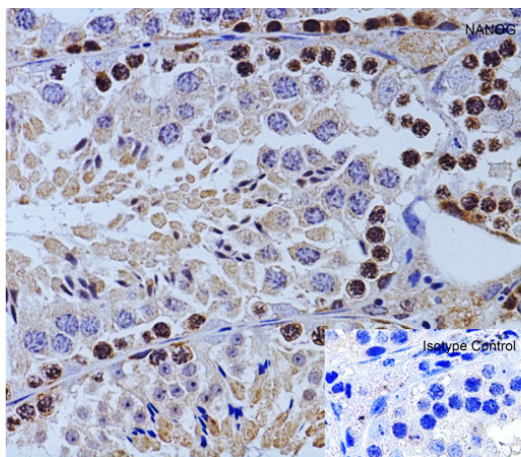
Tissue: human testis tissue.

Fixation: paraffin-embedded, formaldehyde and blocked with 10% serum for 1 h at RT.

Antigen retrieval: heat mediation with a citrate buffer (pH6).

Primary Antibody: anti-NANOG antibody at 5 µg/ml overnight at 4°C.

Secondary: goat anti-rabbit IgG H&L (HRP) at 1:250. Counter stained with Hematoxylin.



Immunohistochemistry

Immunohistochemistry Validation of NANOG.

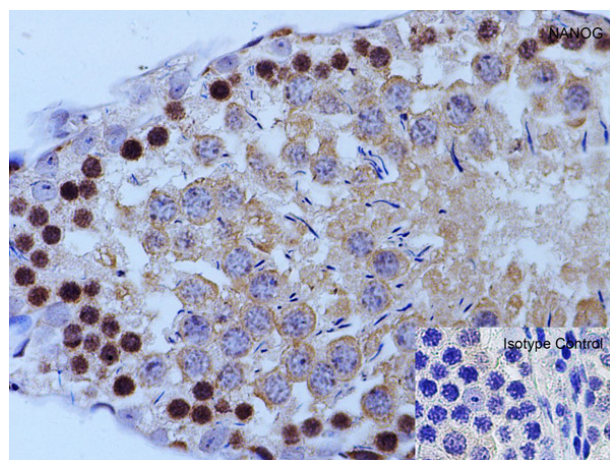
Tissue: mouse testis tissue.

Fixation: paraffin-embedded, formaldehyde and blocked with 10% serum for 1 h at RT.

Antigen retrieval: heat mediation with a citrate buffer (pH6).

Primary Antibody: anti-NANOG antibody at 2 µg/ml overnight at 4°C.

Secondary: goat anti-rabbit IgG H&L (HRP) at 1:250. Counter stained with Hematoxylin.



Immunohistochemistry

Immunohistochemistry Validation of NANOG.

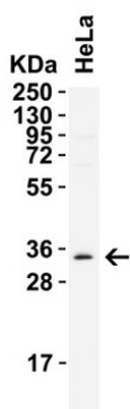
Tissue: rat testis tissue.

Fixation: paraffin-embedded, formaldehyde and blocked with 10% serum for 1 h at RT.

Antigen retrieval: heat mediation with a citrate buffer (pH6).

Primary Antibody: anti-NANOG antibody at 2 µg/ml overnight at 4°C.

Secondary: goat anti-rabbit IgG H&L (HRP) at 1:250. Counter stained with Hematoxylin.



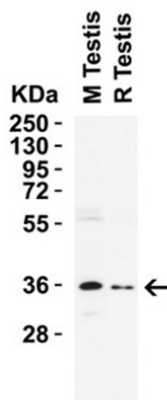
Western Blot

Western Blot of NANOG.

Load: 15 µg of HeLa cell lysate.

Primary antibody: Anti-NANOG at 2 µg/mL for 1h incubation at RT in 8% NFDm/TBST.

Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10,000 dilution.



Western Blot

Western Blot of NANOG.

Load: 15 µg of lysates per lane. Lane 1: mouse testis, Lane 2 : rat testis.

Primary antibody: Anti-NANOG at 2 µg/mL for 1h incubation at RT in 8% NFDm/TBST.

Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10,000 dilution.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.