

Product datasheet

Anti-Nanog antibody [23D2-3C6] ab173368

★★★★★ 2 Abreviews 1 References 8 Images

Overview

Product name	Anti-Nanog antibody [23D2-3C6]
Description	Mouse monoclonal [23D2-3C6] to Nanog
Host species	Mouse
Specificity	ab173368 detects an ~38 kDa protein in embryonal carcinoma cells. Subcellular fractionation shows nuclear localization of Nanog. It shows specificity to Nanog and is non-reactive to lysates from non-embryonal cell types (e.g. HeLa cell lysate).
Tested applications	Suitable for: WB, ICC/IF, Flow Cyt
Species reactivity	Reacts with: Human Predicted to work with: Chimpanzee, Cynomolgus monkey
Immunogen	Recombinant full length protein corresponding to Human Nanog aa 1-305. expressed in bacteria. Sequence: MSVDPACPQS LPCFEASDCK ESSPMPVICG PEENYPQLQM SSAEMPHLET VSPLPSSMDL LIQDSPDSST SPKGGKQPTSA EKSVAKKEDK VPVKKQKTRT VFSSTQLCVL NDRFQRQKYL SLQQMQELSN ILNLSYKQVK TWFQNQRMKS KRWQKNNWPK NSNGVTQKAS APTYPSLYSS YHQGCLVNPT GNLPMWSNQT WNNSTWSNQT QNIQSWSNHS WNTQWCTQS WNNQAWNPF YNCGEESLQS CMQFQPNSPA SDLEAALEAA GEGLNVIQQT TRYFSTPQTM DLFLNYSMMN QPEDV Database link: Q9H9S0 Run BLAST with Run BLAST with
Positive control	NTERA-2 cells; HEL 11.4 induced IPS cells; H9 embryonic stem cells. NCCIT cells.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.05% Sodium azide Constituents: 30% Glycerol, 0.1% BSA, 69% PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	23D2-3C6
Isotype	IgG

Applications

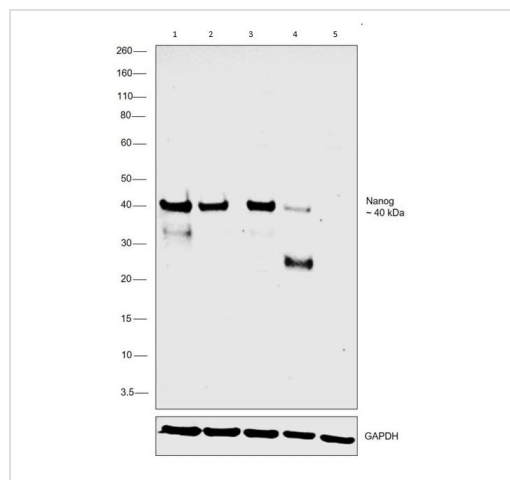
The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab173368 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/500 - 1/2000. Predicted molecular weight: 34 kDa.
ICC/IF	★★★★★ (1)	1/50 - 1/100.
Flow Cyt		1/100.

Target

Function	Transcription regulator involved in inner cell mass and embryonic stem (ES) cells proliferation and self-renewal. Imposes pluripotency on ES cells and prevents their differentiation towards extraembryonic endoderm and trophoctoderm lineages. Blocks bone morphogenetic protein-induced mesoderm differentiation of ES cells by physically interacting with SMAD1 and interfering with the recruitment of coactivators to the active SMAD transcriptional complexes (By similarity). Acts as a transcriptional activator or repressor (By similarity). Binds optimally to the DNA consensus sequence 5'-TAAT[GT][GT]-3' or 5'-[CG][GA][CG]C[GC]ATTAN[GC]-3' (By similarity). When overexpressed, promotes cells to enter into S phase and proliferation.
Tissue specificity	Expressed in testicular carcinoma and derived germ cell tumors (at protein level). Expressed in fetal gonads, ovary and testis. Also expressed in ovary teratocarcinoma cell line and testicular embryonic carcinoma. Not expressed in many somatic organs and oocytes.
Sequence similarities	Belongs to the Nanog homeobox family. Contains 1 homeobox DNA-binding domain.
Developmental stage	Expressed in embryonic stem (ES) and carcinoma (EC) cells. Expressed in inner cell mass (ICM) of the blastocyst and gonocytes between 14 and 19 weeks of gestation (at protein level). Not expressed in oocytes, unfertilized oocytes, 2-16 cell embryos and early morula (at protein level). Expressed in embryonic stem cells (ES). Expression decreases with ES differentiation.
Cellular localization	Nucleus.

Images



Western blot - Anti-Nanog antibody [23D2-3C6] (ab173368)

All lanes : Anti-Nanog antibody [23D2-3C6] (ab173368) at 1/1000 dilution

Lane 1 : NTERA-2 cell line

Lane 2 : NCCIT cell line

Lane 3 : iPSC cell line

Lane 4 : iPSC differentiated to definitive endoderm

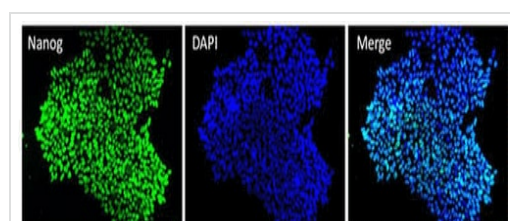
Lane 5 : HeLa cell line

Lysates/proteins at 30 µg per lane.

Secondary

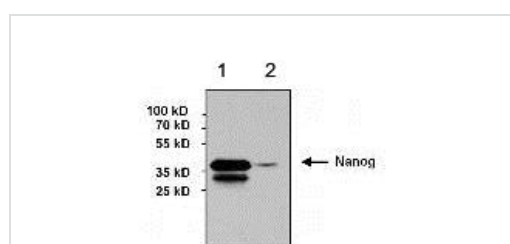
All lanes : Goat anti-Mouse IgG (H+L), Superclonal™ Recombinant Secondary Antibody, HRP at 1/40000 dilution

Predicted band size: 34 kDa



Immunocytochemistry/ Immunofluorescence - Anti-Nanog antibody [23D2-3C6] (ab173368)

Immunofluorescent analysis of H9 embryonic stem cells grown for a few days on Matrigel-coated chamber slides (4% paraformaldehyde fixed and permeabilized with 0.1% Triton X-100) labeling Nanog with ab173368 at 1/200 dilution (green) followed by a fluorescein-conjugated secondary antibody at 1/100 dilution. Nuclei (blue) were stained with DAPI.



Western blot - Anti-Nanog antibody [23D2-3C6] (ab173368)

All lanes : Anti-Nanog antibody [23D2-3C6] (ab173368) at 1/1000 dilution

Lane 1 : NCCIT nuclear fraction lysate

Lane 2 : NCCIT cytoplasmic fraction lysate

Lysates/proteins at 60 µg per lane.

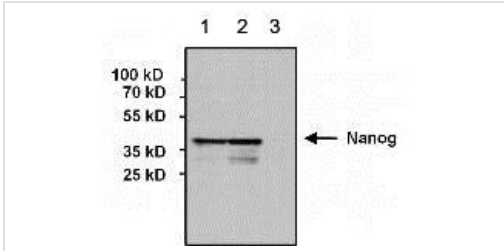
Secondary

All lanes : goat anti-mouse IgG-HRP at 1/20000 dilution

Developed using the ECL technique.

Predicted band size: 34 kDa

4-20% Tris-HCl polyacrylamide gel.



Western blot - Anti-Nanog antibody [23D2-3C6] (ab173368)

All lanes : Anti-Nanog antibody [23D2-3C6] (ab173368) at 1/1000 dilution

Lane 1 : NCCIT lysate

Lane 2 : NTERA-2 lysate

Lane 3 : HeLa lysate

Lysates/proteins at 60 µg per lane.

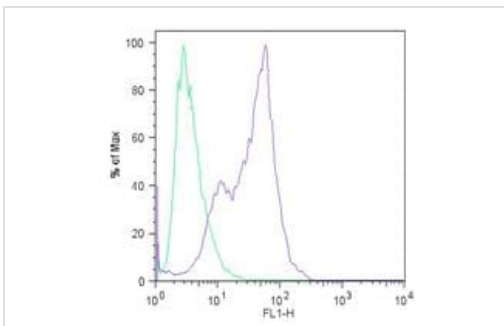
Secondary

All lanes : goat anti-mouse IgG-HRP at 1/20000 dilution

Developed using the ECL technique.

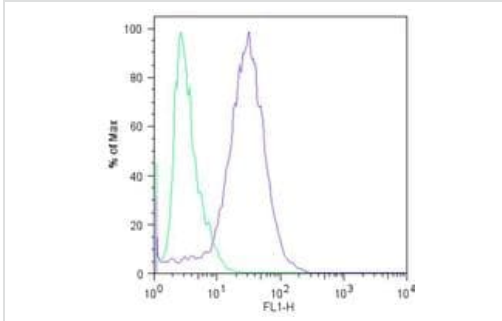
Predicted band size: 34 kDa

4-20% Tris-HCl polyacrylamide gel



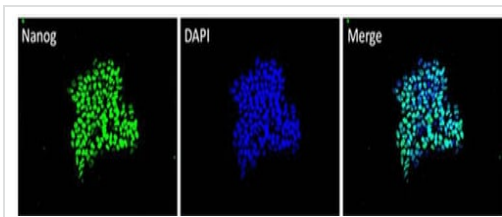
Flow Cytometry - Anti-Nanog antibody [23D2-3C6] (ab173368)

Flow cytometric analysis of H9 embryonic stem cells labeling Nanog with ab173368 at 1/100 (blue histogram) or mouse IgG (green histogram) followed by a fluorescein-conjugated secondary at 1/200 dilution.



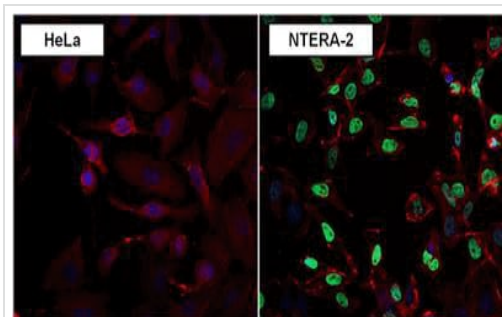
Flow Cytometry - Anti-Nanog antibody [23D2-3C6] (ab173368)

Flow cytometric analysis of HEL 11.4 induced IPS cells labeling Nanog with ab173368 at 1/100 dilution (blue histogram) or mouse IgG (green histogram) followed by a fluorescein-conjugated secondary antibody at 1/200 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-Nanog antibody [23D2-3C6] (ab173368)

Immunofluorescent analysis of HEL 11.4 induced IPS cells grown for a few days on Matrigel-coated chamber slides (4% paraformaldehyde fixed and permeabilized with 0.1% Triton X-100) labeling Nanog with ab173368 at 1/200 dilution (green) followed by a fluorescein-conjugated secondary antibody at 1/100 dilution. Nuclei (blue) were stained with DAPI.



Immunocytochemistry/ Immunofluorescence - Anti-Nanog antibody [23D2-3C6] (ab173368)

Immunofluorescent analysis of NTERA-2 and HeLa cells (formalin-fixed and permeabilized with 0.1% Triton X-100) labeling Nanog with ab173368 at 1/50 dilution (green) followed by DyLight 488-conjugated goat anti-mouse IgG secondary antibody. F-Actin (red) was stained with DyLight-554 Phalloidin and nuclei (blue) were stained with Hoechst 33342 dye.

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