

Product datasheet

Anti-Nanog antibody - ChIP Grade ab21624

★★★★★ 15 Abreviews 127 References 6 Images

Overview

Product name	Anti-Nanog antibody - ChIP Grade
Description	Rabbit polyclonal to Nanog - ChIP Grade
Host species	Rabbit
Tested applications	Suitable for: IHC-P, ICC, Flow Cyt, ICC/IF, WB, Sandwich ELISA, ChIP
Species reactivity	Reacts with: Human Does not react with: Mouse
Immunogen	Synthetic peptide corresponding to Human Nanog aa 29-49. Sequence: CGPEENYPSLQMSSAEMPSTE Run BLAST with Run BLAST with

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 or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.1% Sodium azide Constituent: PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab21624** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

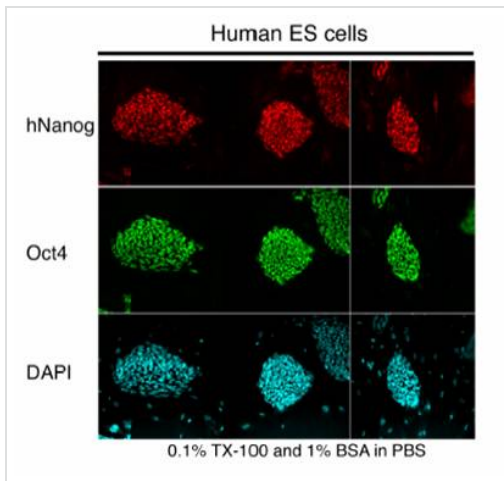
Application	Abreviews	Notes
IHC-P	★★★★★	Use at an assay dependent concentration.

Application	Abreviews	Notes
ICC		1/100.
Flow Cyt	★★★★★	Use at an assay dependent concentration. ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF	★★★★★	1/1000.
WB	★★★★★	1/200. Detects a band of approximately 38 kDa (predicted molecular weight: 34 kDa). Some users report a stronger signal after blocking and diluting antibodies with 1% BSA instead of 5% milk.
Sandwich ELISA		Use a concentration of 0.5 µg/ml. For sandwich ELISA, use this antibody as Detection at 0.5 µg/ml with Mouse monoclonal [1E6C4] to Nanog (ab76586) as Capture.
ChIP	★★★★★	Use at an assay dependent concentration. PubMed: 18710938

Target

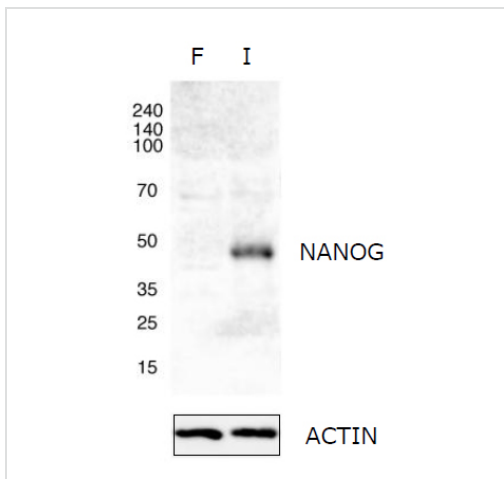
Function	Transcription regulator involved in inner cell mass and embryonic stem (ES) cells proliferation and self-renewal. Imposes pluripotency on ES cells and prevents their differentiation towards extraembryonic endoderm and trophoctoderm lineages. Blocks bone morphogenetic protein-induced mesoderm 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



Immunocytochemistry/ Immunofluorescence - Anti-Nanog antibody - ChIP Grade (ab21624)

ab21624 at a 1/1000 dilution staining Nanog in human embryonic stem cells by ICC. An antibody towards Oct4, which has an identical staining pattern to ab21624, was used as a positive control.



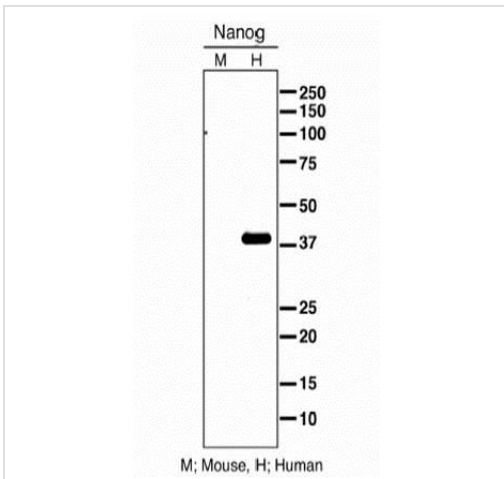
Western blot - Anti-Nanog antibody - ChIP Grade (ab21624)

All lanes : Anti-Nanog antibody - ChIP Grade (ab21624) at 1/200 dilution

Lane 1 : Human fetal fibroblast lysate

Lane 2 : Human iPS cell lysate

Predicted band size: 34 kDa



Western blot - Anti-Nanog antibody - ChIP Grade (ab21624)

All lanes : Anti-Nanog antibody - ChIP Grade (ab21624) at 1/1000 dilution

Lane 1 : whole cell extract of mouse 3T3 cells expressing mouse Nanog.

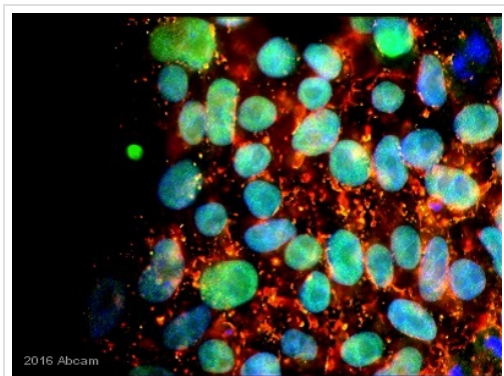
Lane 2 : whole cell extract of mouse 3T3 cells expressing human Nanog.

Predicted band size: 34 kDa

Observed band size: 38 kDa

[why is the actual band size different from the predicted?](#)

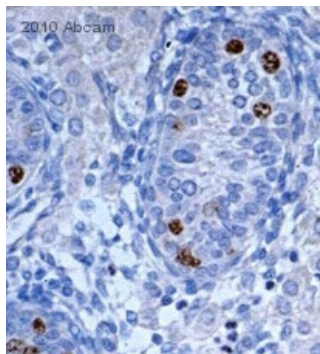
ab21624 recognizes human Nanog but does not recognize mouse Nanog in Western Blot.



Immunocytochemistry/ Immunofluorescence - Anti-Nanog antibody - ChIP Grade (ab21624)

Image courtesy of Mick Wauchope

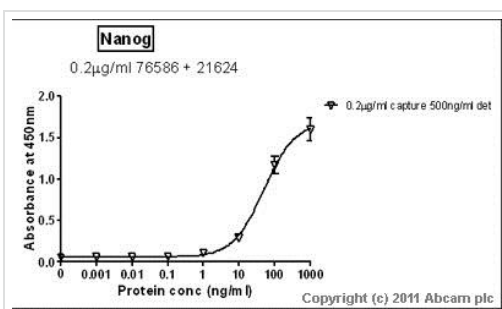
Immunocytochemical analysis of Human iPSCs labeling Nanog with ab21624 at 1/75 dilution.



ab21624 staining Nanog in Human testis tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde and blocked with 10% serum for 1 hour at 20°C; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/500 in PBS) for 12 hours at 4°C. A Biotin-conjugated Goat anti-rabbit polyclonal (1/200) was used as the secondary antibody.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nanog antibody - ChIP Grade (ab21624)

This image is courtesy of an anonymous Abreview



Standard Curve for Nanog (Analyte: [Nanog protein \(ab50053\)](#)); dilution range 1 pg/ml to 1 ug/ml using Capture Antibody [Mouse monoclonal \[1E6C4\] to Nanog \(ab76586\)](#) at 0.2 ug/ml and Detector Antibody [Rabbit polyclonal to Nanog - ChIP Grade \(ab21624\)](#) at 0.5 ug/ml.

Sandwich ELISA - Anti-Nanog antibody - ChIP Grade (ab21624)

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