

Product datasheet

Anti-Nanog antibody ab70482

★★★★★ 4 Abreviews 6 References 5 Images

Overview

Product name	Anti-Nanog antibody
Description	Rabbit polyclonal to Nanog
Host species	Rabbit
Tested applications	Suitable for: ICC/IF, IHC-P, WB, IP
Species reactivity	Reacts with: Mouse
Immunogen	A region between residue 250 and the C-terminus (residue 305) of Mouse Nanog using the numbering given in entry NP_079141.2
Positive control	Whole cell lysate from mouse embryonic stem cells.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.09% Sodium azide Constituents: 1.815% Tris, 1.764% Sodium citrate, 0.021% PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab70482** 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
ICC/IF	★★★★★	Use at an assay dependent concentration. PubMed: 20331356
IHC-P	★★★★★	1/750. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB	★★★★★	1/1000 - 1/10000. Detects a band of approximately 40 kDa (predicted molecular weight: 35 kDa).

Application	Abreviews	Notes
IP		Use at 2-5 µg/mg of lysate.

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 trophectoderm 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.

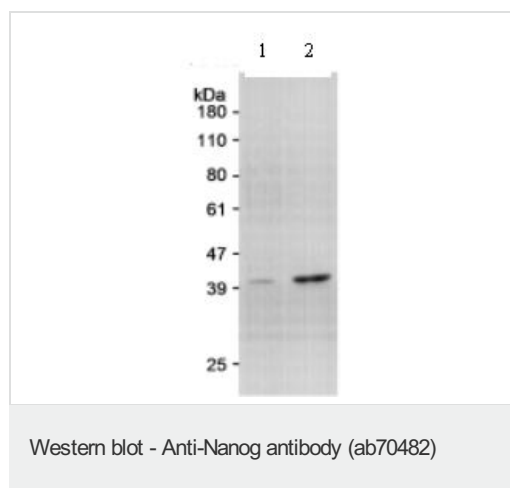
Tissue specificity Expressed in testicular carcinoma and derived germ cell tumors (at protein level). Expressed in fetal gonads, ovary and testis. Also expressed in ovary teratocarcinoma cell line and testicular embryonic carcinoma. Not expressed in many somatic organs and oocytes.

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



All lanes : Anti-Nanog antibody (ab70482) at 0.1 µg/ml

Lane 1 : Whole cell lysate
from mouse embryonic stem cells at 15 µg

Lane 2 : Whole cell lysate
from mouse embryonic stem cells at 50 µg

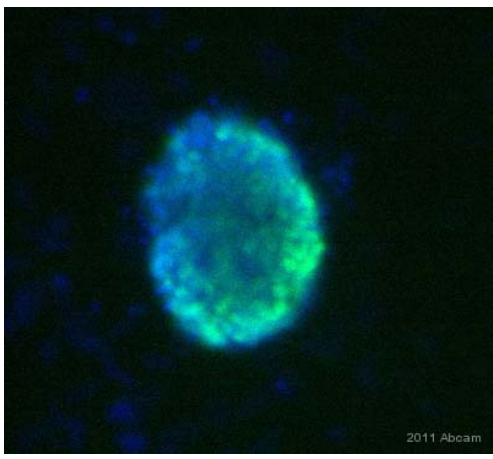
Developed using the ECL technique.

Predicted band size: 35 kDa

Observed band size: 39 kDa

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

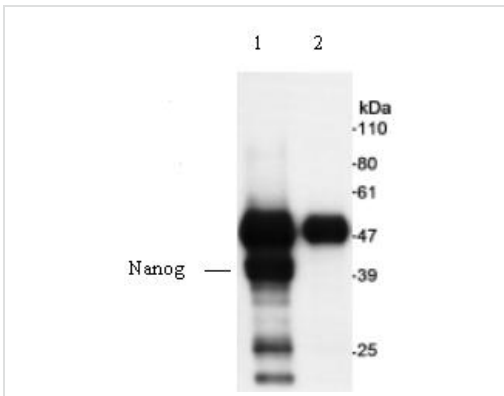
Exposure time: 12 seconds



Immunocytochemistry/ Immunofluorescence - Anti-Nanog antibody (ab70482)

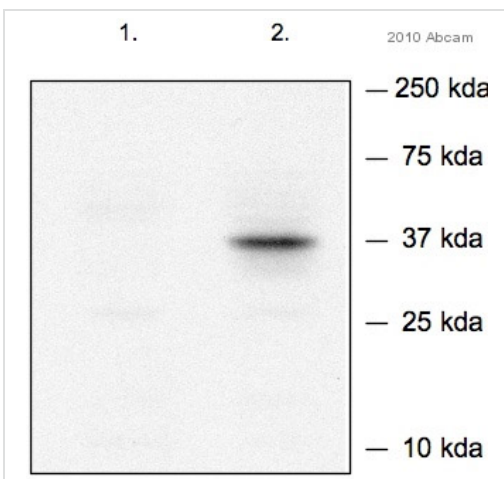
Image courtesy of an anonymous Abreview.

ab70482 staining Nanog in murine embryonic stem cells by Immunocytochemistry/ Immunofluorescence. The cells were fixed in paraformaldehyde, permeabilised in 0.05% Triton X-100 and blocked using 10% serum for 2 hours at 20°C. Samples were then incubated with primary antibody at 1/500 for 16 hours at 4°C. The secondary antibody used was a goat anti-rabbit IgG (H+L) conjugated to Alexa Fluor® 488 (green) used at a 1/1000 dilution.



Immunoprecipitation - Anti-Nanog antibody (ab70482)

Detection of Mouse Nanog by Western Blot of Immunoprecipitation with whole cell lysate (1mg) from mouse embryonic stem cells and ab 70482 at 2µg/mg lysate. Lane 1: ab70482, Lane 2: rabbit IgG control Immunoprecipitated Nanog was blotted using an anti-Nanog antibody at 0.1µg/ml.



Western blot - Anti-Nanog antibody (ab70482)
This image is courtesy of an anonymous Abreview

All lanes : Anti-Nanog antibody (ab70482) at 1/1000 dilution (for 16 hours at 4°C)

Lane 1 : Murine Embryonic Fibroblasts (MEFs)

Lane 2 : Murine Embryonic Stem (ES) Cells

Lysates/proteins at 50 µg per lane.

Secondary

All lanes : An HRP-conjugated Donkey anti-rabbit IgG monoclonal at 1/10000 dilution

Developed using the ECL technique.

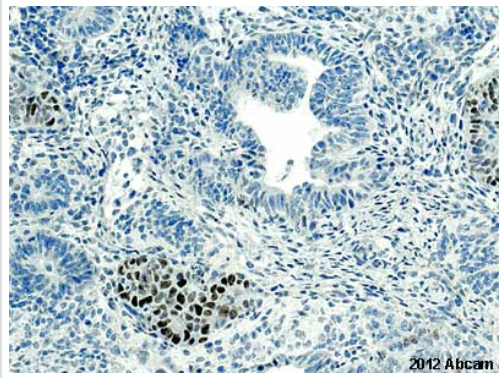
Predicted band size: 35 kDa

Observed band size: 40 kDa [why is the actual band size different](#)

from the predicted?

Exposure time: 1 minute

Blocking Step: 3% BSA for 1 hour at 20°C



ab70482 staining mouse teratoma sections by IHC-P. The tissue was fixed with formaldehyde and a heat mediated antigen retrieval step was performed with HIER buffer. Blocking of the sample was done with 1% BSA for 10 minutes at 21°C, followed by staining with ab70482 at 1/750 in TBS/BSA/azide for 2h at 21°C. A biotinylated goat anti-rabbit polyclonal antibody at 1/200 was used as the secondary antibody.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nanog antibody (ab70482)

This image is courtesy of an Abreview submitted by Carl Hobbs

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors