



Product datasheet

Anti-Nanog antibody [SER211] ab241542

Recombinant

3 Images

Overview

Product name	Anti-Nanog antibody [SER211]
Description	Rat monoclonal [SER211] to Nanog
Host species	Rat
Tested applications	Suitable for: ICC, WB
Species reactivity	Reacts with: Mouse
Immunogen	Recombinant fragment (GST-tag) within Nanog aa 1-100. The exact immunogen sequence used to generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the antibody for your needs, please contact our Scientific Support team to discuss your requirements.
	 Run BLAST with  Run BLAST with
Positive control	WB: F9 whole cell lysate. ICC: F9 cells.
General notes	<p>This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot. Store at +4°C. Avoid freeze / thaw cycle.
Storage buffer	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: PBS, 0.05% BSA, 40% Glycerol (glycerin, glycerine)</p>
Purity	Ion Exchange Chromatography
Clonality	Monoclonal
Clone number	SER211

Isotype

IgG2a

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab241542 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		1/100.
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 40 kDa (predicted molecular weight: 34 kDa).

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.

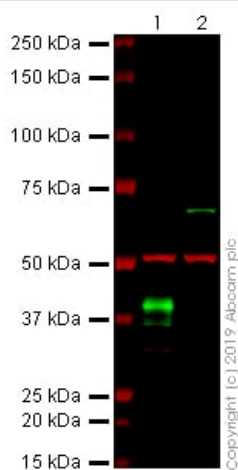
Developmental stage

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



Western blot - Anti-Nanog antibody [SER211]
(ab241542)

All lanes : Anti-Nanog antibody [SER211] (ab241542) at 1 µg/ml

Lane 1 : F9 whole cell lysate

Lane 2 : MEF1 whole cell lysate

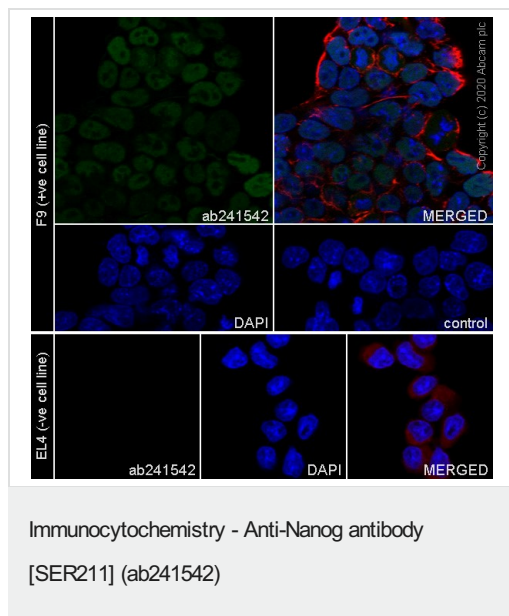
Lysates/proteins at 20 µg per lane.

Predicted band size: 34 kDa

Observed band size: 40 kDa





Lanes 1 -4: Merged signal (red and green). Green - ab241542 observed at 40 kDa. Red - loading control, **ab52866** (Anti-alpha Tubulin antibody [EP1332Y]) observed at 55 kDa.

ab241542 was shown to react with Nanog in whole cell lysates subjected to SDS-PAGE. Membranes were blocked in 3% Milk in TBS-T (0.1% Tween®) before incubation with ab241542 and **ab52866** (Anti-alpha Tubulin antibody [EP1332Y]) overnight at 4°C at 1 µg/µl and a 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rat IgG H&L (IRDye® 800CW) preabsorbed (**ab253031**) and Goat anti-Rabbit IgG H&L (IRDye® 680RD) preabsorbed (**ab216777**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Immunocytochemistry analysis of F9 cells using ab241542 at 1:100 dilution. Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% TritonX-100. Cells were counterstained with **ab179504** Anti-beta IV Tubulin at 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150157**) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain.

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Anti-Nanog antibody [SER211] (ab241542)

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

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