Datasheet for ABIN6972403

anti-Nanog antibody (N-Term)

3 Images

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Overview

Quantity:	100 µL
Target:	Nanog (NANOG)
Binding Specificity:	N-Term
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Immunofluorescence (IF), Immunocytochemistry (ICC), Cleavage Under Targets and Release Using Nuclease (CUT&RUN), Chromatin Immunoprecipitation (ChIP), ChIP DNA-Sequencing (ChIP-seq)

Product Details

Immunogen:	This antibody was raised against a peptide within the N-terminal region of mouse Nanog.
Isotype:	IgG
Characteristics:	Nanog (Nanog homeobox) is a transcriptional 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 (By similarity). Nanog antibody (pAb) was raised in a Rabbit host.

Product Details

	It has been validated for use in Chromatin Immunoprecipitation, ChIP-Seq, Immunocytochemistry, Immunofluorescence and Western blot, it has been shown to react with Human and Mouse samples.
Purification:	Affinity Purified

Target Details

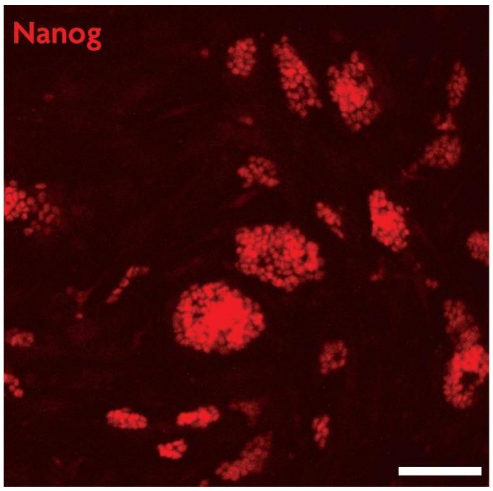
Target:	Nanog (NANOG)
Alternative Name:	Nanog (NANOG Products)
Molecular Weight:	45 kDa
NCBI Accession:	NP_082292
Pathways:	Stem Cell Maintenance

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Restrictions:	For Research Use only

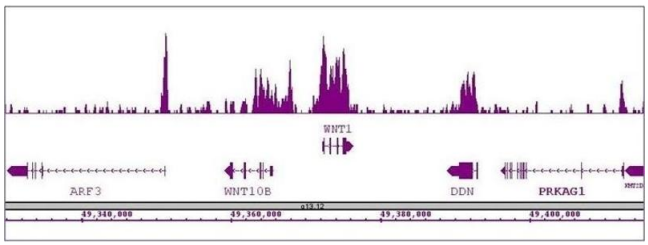
Handling

Buffer:	Purified IgG in PBS with 30 % glycerol and 0.035 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage.



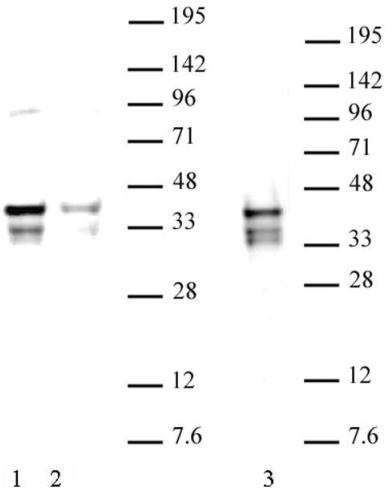
Immunofluorescence

Image 1. Nanog antibody (pAb) tested by Immunofluorescence Mouse embryonic stem cells (mESCs) grown on mouse embryonic fibroblast feeder cells (MEFs) were fixed with 4 % paraformaldehyde for 10 minutes at room temperature. Cells were then permeabilized and blocked by incubating with Blocking Solution containing 5 % serum/0.1 % Triton X-100 in D-PBS for 2 hours at room temperature. Cells were then incubated with Nanog antibody ,(red) at 1:200 dilution overnight at 4 °C, washed with D-PBS, and incubated for 2 hours at room temperature with goat anti-mouse Cy3 secondary antibody at 1:250 dilution. Cells were visualized using a Zeiss fluorescent microscope at 20X magnification. Images show that Nanog antibody specifically stains mESC colonies and does not stain MEFs. Absence of Nanog staining in a subset of cells within the colonies suggests differentiation. Scale bars, 100 µm.



ChIP DNA-Sequencing

Image 2. Nanog antibody (pAb) tested by ChIP-Seq. ChIP was performed using the ChIP-IT High Sensitivity Kit with 30 µg of chromatin from undifferentiated hESC cells and 3 µL of antibody. ChIP DNA was sequenced on the Illumina HiSeq and 9 million sequence tags were mapped to identify Nanog binding sites. The image shows binding across a region of chromosome 12. You can view the complete data set in the UCSC Genome Browser, starting at this specific location, here.



Western Blotting

Image 3. Nanog (pAb) tested by Western blot. 20 µg of mouse Embryonic Stem Cell (ESC) extract was run on SDS-PAGE and probed with antibody at 2 µg/mL.