

NANOG Antibody (Center)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1486c

Specification

NANOG Antibody (Center) - Product Information

Application	WB,E
Primary Accession	Q9H9S0
Other Accession	Q6NSW7 , Q5TM84 , Q4JM65 , Q8N7R0
Reactivity	Human
Predicted	Bovine, Monkey
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	94-123

NANOG Antibody (Center) - Additional Information

Gene ID 79923

Other Names

Homeobox protein NANOG, Homeobox transcription factor Nanog, hNanog, NANOG

Target/Specificity

This NANOG antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 94-123 amino acids from the Central region of human NANOG.

Dilution

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

NANOG Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

NANOG Antibody (Center) - Protein Information

Name NANOG

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. Acts as a transcriptional activator or repressor. Binds optimally to the DNA consensus sequence 5'-TAAT[GT][GT]-3' or 5'-[CG][GA][CG]C[GC]ATTAN[GC]- 3'. Binds to the POU5F1/OCT4 promoter (PubMed:[25825768](#)). Able to autorepress its expression in differentiating (ES) cells: binds to its own promoter following interaction with ZNF281/ZFP281, leading to recruitment of the NURD complex and subsequent repression of expression. When overexpressed, promotes cells to enter into S phase and proliferation.

Cellular Location

Nucleus {ECO:0000255|PROSITE-ProRule:PRU00108, ECO:0000269|PubMed:15983365}

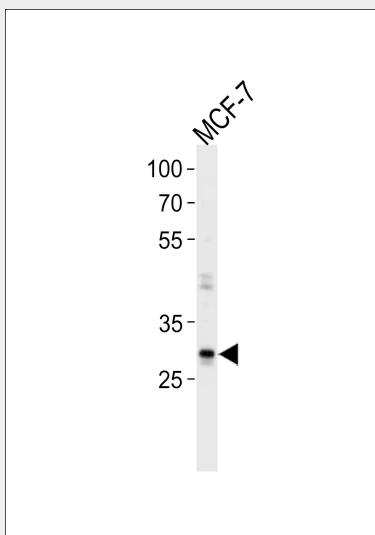
Tissue Location

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.

NANOG Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

NANOG Antibody (Center) - Images

NANOG Antibody (Center) (Cat. #AP1486c) western blot analysis in MCF-7 cell line lysates (35ug/lane). This demonstrates the NANOG antibody detected the NANOG protein (arrow).

NANOG Antibody (Center) - Background

NANOG is a transcription regulator involved in inner cell mass and embryonic stem (ES) cell proliferation and self-renewal. It imposes pluripotency on ES cells and prevents their differentiation towards extraembryonic endoderm and trophectoderm lineages. This protein 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. NANOG acts as a transcriptional activator or repressor. It binds optimally to the DNA consensus sequence 5'-[CG][GA][CG]C[GC]ATTAN[GC]-3'. When overexpressed, this protein promotes cells to enter into S phase and proliferation.

NANOG Antibody (Center) - References

Kochupurakkal,B.S., Biochem. Biophys. Res. Commun. 365 (4), 846-850 (2008)

Freberg,C.T., Mol. Biol. Cell 18 (5), 1543-1553 (2007)

NANOG Antibody (Center) - Citations

- [Combinatorial interactions of genetic variants in human cardiomyopathy.](#)
- [AHNAK2 is a Novel Prognostic Marker and Oncogenic Protein for Clear Cell Renal Cell Carcinoma.](#)
- [Reprogramming mediated radio-resistance of 3D-grown cancer cells.](#)