

### Rabbit Anti-Nanog Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP52287

### **Specification**

### Rabbit Anti-Nanog Polyclonal Antibody - Product Information

Application WB, IHC-P
Primary Accession Q80Z64
Reactivity Mouse, Rat
Host Rabbit
Clonality Polyclonal
Calculated MW 34240

# Rabbit Anti-Nanog Polyclonal Antibody - Additional Information

Gene ID 71950

#### **Other Names**

ENK; ecat4; 2412E2Rik; Homeobox protein NANOG; ES cell-associated protein 4; Early embryo specific expression NK-type homeobox protein; Homeobox transcription factor Nanog; Nanog

#### Dilution

<span class ="dilution\_WB">WB~~1:100~1:500</span><br \> <span class ="dilution\_IHC-P">IHC-P~~1:100~1:500</span>

#### **Format**

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

## **Storage**

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

#### Rabbit Anti-Nanog Polyclonal Antibody - Protein Information

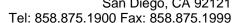
### Name Nanog

Synonyms Ecat4, Enk

### **Function**

Transcription regulator involved in inner cell mass and embryonic stem (ES) cells proliferation and self-renewal (PubMed:<a href="http://www.uniprot.org/citations/25825768" target="\_blank">25825768</a>). 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 (By similarity). 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:15582778}

#### **Tissue Location**

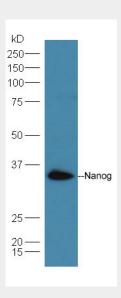
Not expressed in oocytes and spermatogonia (at protein level). Not expressed in many somatic organs, ovary, testis, fibroblast and hematopoietic cell lines.

## **Rabbit Anti-Nanog Polyclonal Antibody - Protocols**

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

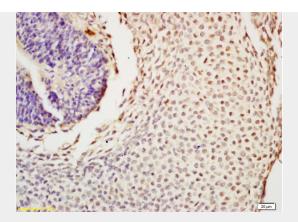
- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## Rabbit Anti-Nanog Polyclonal Antibody - Images



Lane 1: A549 cell lysates probed with Rabbit Anti-Nanog Polyclonal Antibody, Unconjugated (AP52287) at 1:300 overnight at 4°C. Followed by conjugation to secondary antibody at 1:5000 for 90 min at 37°C.





Formalin-fixed and paraffin embedded mouse tooth germ tissue labeled with Anti-Nanog Polyclonal Antibody (AP52287), Unconjugated at 1:200, followed by conjugation to the secondary antibody and DAB staining

# Rabbit Anti-Nanog Polyclonal Antibody - Background

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'. 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.