

**Anti-Nanog Picoband Antibody**  
Catalog # ABO10026**Specification**

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**Anti-Nanog Picoband Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">O9H9S0</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Homeobox protein NANOG(NANOG) detection. Tested with WB in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-Nanog Picoband Antibody - Additional Information**

**Gene ID** 79923

**Other Names**

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

**Calculated MW**

34620 MW KDa

**Application Details**

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat<br>

**Subcellular Localization**

Nucleus .

**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. .

**Protein Name**

Homeobox protein NANOG

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Na<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence in the middle region of human Nanog (115-155aa QRQKYLSQLQMQELSNILNLSYKQVKTWTFQNRMKSKRWQK), different from the related mouse sequence by three amino acids.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins.

**Storage**

**At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.**

**Anti-Nanog Picoband Antibody - 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 trophoctoderm 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:<a href="http://www.uniprot.org/citations/25825768" target="\_blank">25825768</a>). 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}

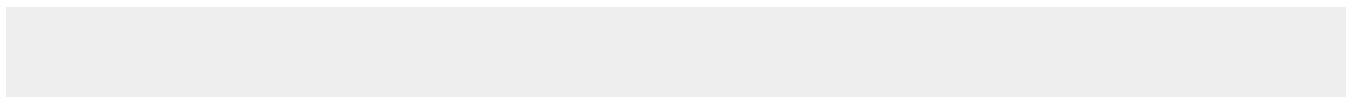
**Tissue Location**

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.

**Anti-Nanog Picoband Antibody - 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](#)

**Anti-Nanog Picoband Antibody - Images**



Western blot analysis of Nanog expression in rat ovary extract (lane 1), mouse ovary extract (lane 2) and MCF-7 whole cell lysates (lane 3). Nanog at 48KD was detected using rabbit anti-Nanog Antigen Affinity purified polyclonal antibody (Catalog # ABO10026) at 0.5  $\mu$ g/mL. The blot was developed using chemiluminescence (ECL) method .

#### **Anti-Nanog Picoband Antibody - Background**

NANOG (pron. nanOg) is a transcription factor critically involved with self-renewal of undifferentiated embryonic stem cells. In humans, this protein is encoded by the NANOG gene. It is mapped to 12p13.31. NANOG is thought to be a key factor in maintaining pluripotency. Moreover, NANOG is also thought to function in concert with other factors such as POU5F1 (Oct-4) and SOX2 to establish ESC identity. The NANOG protein has been found to be a transcriptional activator for the Rex1 promoter, playing a key role in sustaining Rex1 expression. Knockdown of NANOG in embryonic stem cells results in a reduction of Rex1 expression, while forced expression of NANOG stimulates Rex1 expression.