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Anti-Nanog Picoband Antibody

Catalog # ABO10026

Specification

Anti-Nanog Picoband Antibody - Product Information

Application	**WB**
Primary Accession	Q9H9S0
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

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 Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence in the middle region of human Nanog (115-155aa QRQKYLSLQQMQELSNILNLSYKQVKTWFQNQRMKSKRWQK), 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 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.

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 Cytomety
- Cell Culture

Anti-Nanog Picoband Antibody - Images

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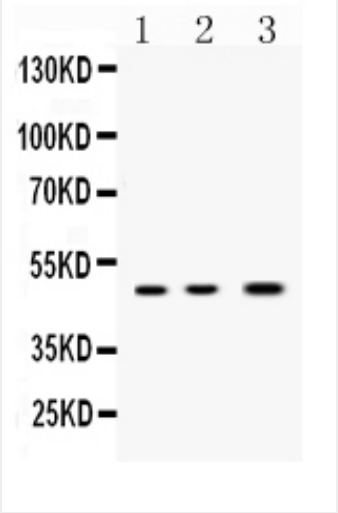

Western blot analysis of Nanog expression in rat ovary extract (lane 1), mouse ovary extract (lane 2) and MCF-7 whole cell lysates (lane 3). Nanog at 48KD was detected using rabbit anti-Nanog Antigen Affinity purified polyclonal antibody (Catalog # ABO10026) at 0.5 Î¼g/mL. The blot was developed using 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.