

NANOG Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP1486a**Specification**

NANOG Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [Q9H9S0](#)**NANOG Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 79923**Other Names**

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

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP1486a](/product/products/AP1486a) was selected from the N-term region of human NANOG. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

NANOG Antibody (N-term) Blocking Peptide - 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: [25825768](http://www.uniprot.org/citations/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 (N-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

NANOG Antibody (N-term) Blocking Peptide - Images**NANOG Antibody (N-term) Blocking Peptide - 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 trophoctoderm 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 (N-term) Blocking Peptide - References

Kochupurakkal, B.S., Biochem. Biophys. Res. Commun. 365 (4), 846-850 (2008) Freberg, C.T., Mol. Biol. Cell 18 (5), 1543-1553 (2007)