

**NANOG Blocking Peptide (Center)**  
**Synthetic peptide**  
**Catalog # BP21336c****Specification**

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**NANOG Blocking Peptide (Center) - Product Information**Primary Accession [Q9H9S0](#)**NANOG Blocking Peptide (Center) - Additional Information****Gene ID** 79923**Other Names**

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

**Target/Specificity**

The synthetic peptide sequence is selected from aa 155-169 of HUMAN NANOG

**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 Blocking Peptide (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 trophoblast 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.

**NANOG Blocking Peptide (Center) - Protocols**

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

- [Blocking Peptides](#)

**NANOG Blocking Peptide (Center) - Images****NANOG Blocking Peptide (Center) - Background**

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**NANOG Blocking Peptide (Center) - References**

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Clark A.T., et al. Stem Cells 22:169-179(2004).  
Kim J.S., et al. Exp. Mol. Med. 37:601-607(2005).  
Ota T., et al. Nat. Genet. 36:40-45(2004).  
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