10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Goat Anti-NANOG Antibody

Peptide-affinity purified goat antibody

Catalog # AF1707b

Specification

Goat Anti-NANOG Antibody - Product Information

Application	**WB, IHC, IF, Pep-ELISA**
Primary Accession	Q9H9S0
Other Accession	NP_079141, 79923, 71950 (mouse), 414065 (rat)
Reactivity	**Human, Pig**
Predicted	**Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**34620**

Goat Anti-NANOG Antibody - Additional Information

Gene ID 79923

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

Dilution
WB~~1:1000
IHC~~1:100~500
IF~~1:50~200
Pep-ELISA~~N/A

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-NANOG Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-NANOG 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.

Goat Anti-NANOG Antibody - Protocols

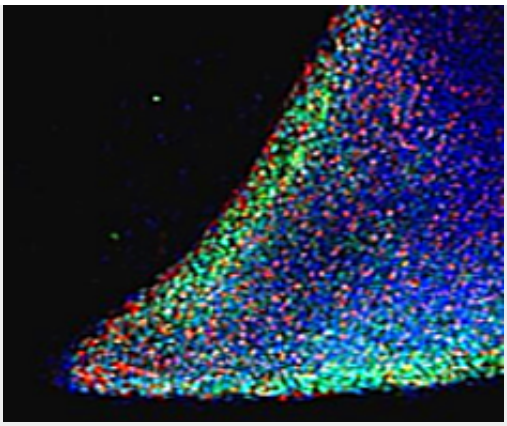
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-NANOG Antibody - Images

AF1707b (0.03µg/ml) staining of Human Ovary lysate (35µg protein in RIPA buffer). Detected by chemiluminescence.

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



AF1707b (5ug/ml) staining (green) parts of a colony of induced pluriform stem cells derived from Human Keratinocytes. Data kindly provided by CMRB, Center of Regenerative Medicine in Barcelona, Spain.

Goat Anti-NANOG Antibody - References

Hedgehog controls neural stem cells through p53-independent regulation of Nanog. Po A, et al. EMBO J, 2010 Aug 4. PMID 20581804.
NANOG regulates glioma stem cells and is essential in vivo acting in a cross-functional network with GLI1 and p53. Zbinden M, et al. EMBO J, 2010 Aug 4. PMID 20581802.
A distinct expression pattern in mammalian testes indicates a conserved role for NANOG in spermatogenesis. Kuijk EW, et al. PLoS One, 2010 Jun 7. PMID 20539761.
Expression profile of the embryonic markers nanog, OCT-4, SSEA-1, SSEA-4, and frizzled-9 receptor in human periodontal ligament mesenchymal stem cells. Trubiani O, et al. J Cell Physiol, 2010 Oct. PMID 20458727.
Novel candidate cancer genes identified by a large-scale cross-species comparative oncogenomics approach. Mattison J, et al. Cancer Res, 2010 Feb 1. PMID 20103622.