



Rabbit anti-human Nanog homeobox polyclonal Antibody

Catalog Number: CSB-PA015424GA01HU

Synonym Names	Homeobox transcription factor Nanog,hNanog,NANOG
Product type	Primary antibodies
Description	Rabbit polyclonal to NANOG
Clonality	Polyclonal
Isotype	IgG
Reacts with	Human,Mouse,Rat; Other species are not tested. Please decide the specificity by homology.
Conjugate	Non-conjugated
Purity	Antigen Affinity Purified
Storage buffer	PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Storage	Shipped at 4°C Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze.
Form	Liquid
Raised in	Rabbit
Tested applications	ELISA: Use at an assay dependent dilution. WB: 1:1000-1:10000 IF: 1:100-1:500 (Recommender dilutions)
Positive WB detected in	Rat brain tissue, human brain tissue, mouse brain tissue
Positive IF detected in	Human embryonic stem cells
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'. 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.
References	[1]"Eleven daughters of NANOG."Booth H.A., Holland P.W.Genomics 84:229-238(2004). [2]"Solution structure of human stem cell transcription factor NANOG." Center for eukaryotic structural genomics (CESG)Submitted (MAR-2010). [3]"Downregulation of NANOG induces differentiation of human embryonic stem cells to extraembryonic lineages."Hyslop L.A., Stojkovic M., Armstrong L., Walter T., Stojkovic P., Przyborski S., Herbert M., Murdoch A., Strachan T., Lako M.Stem Cells 23:1035-1043(2005).