

## Product datasheet for TA302154

### NANOG Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	FC, IF, IHC, WB
Recommended Dilution:	WB: 1:1000, IHC: 1:10~50, IF: 1:10~50, FC: 1:10~50
Reactivity:	Human (Predicted: Bovine, Monkey)
Host:	Rabbit
Isotype:	Ig
Clonality:	Polyclonal
Immunogen:	This NANOG antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 94-123 amino acids from the Central region of human NANOG.
Formulation:	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.
Concentration:	lot specific
Purification:	This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	34489 Da
Gene Name:	Nanog homeobox
Database Link:	<a href="#">NP_079141 Entrez Gene 715746 Monkey</a> <a href="#">Entrez Gene 79923 Human</a>
Background:	NANOG is a Ttranscription regulator involved in inner cell mass and embryonic stem (ES) cells 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.

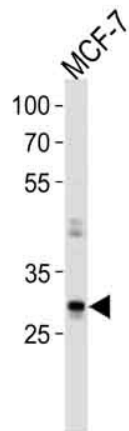


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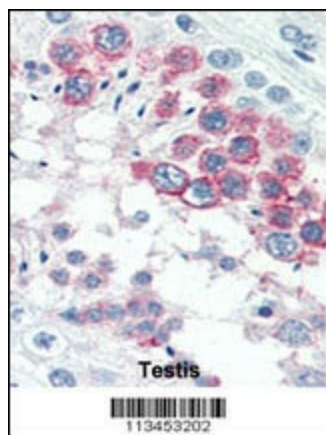
**Synonyms:** homeobox transcription factor Nanog; homeobox transcription factor Nanog-delta 48; Nanog homeobox

**Protein Families:** Cancer stem cells, Embryonic stem cells, ES Cell Differentiation/IPS, Induced pluripotent stem cells, Stem cell - Pluripotency

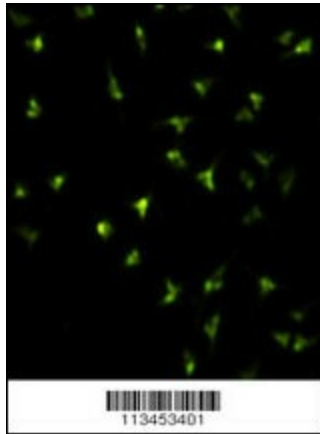
**Product images:**



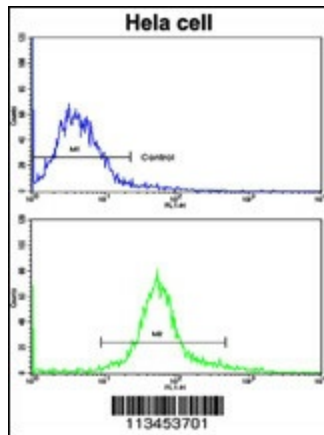
NANOG Antibody (Center) (Cat. #TA302154) western blot analysis in MCF-7 cell line lysates (35ug/lane). This demonstrates the NANOG antibody detected the NANOG protein (arrow).



Formalin-fixed and paraffin-embedded human Testis tissue reacted with NANOG antibody (Center) (Cat.#TA302154), which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Immunofluorescence analysis of NANOG Antibody (Center) with HeLa cells. 0.025 mg/ml primary antibody was followed by FITC-conjugated goat anti-rabbit IgG (whole molecule). FITC emits green fluorescence.



Flow cytometric analysis of HeLa cells using NANOG Antibody (Center) (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.