

Product datasheet for **TA302153**

NANOG Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	FC, IF, IHC, WB
Recommended Dilution:	WB: 1:1000, IF: 1:10~50, IHC: 1:10~50, FC: 1:10~50
Reactivity:	Human (Predicted: Monkey)
Host:	Rabbit
Isotype:	Ig
Clonality:	Polyclonal
Immunogen:	This NANOG antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 15-49 amino acids from the N-terminal 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.
Conjugation:	Unconjugated
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:	NP_079141 Entrez Gene 715746 Monkey Entrez Gene 79923 Human Q9H9S0



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Background:

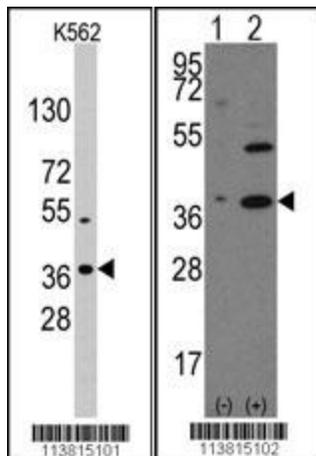
NANOG is a transcription regulator involved in inner cell mass and embryonic stem (ES) cell proliferation and self-renewal. It imposes pluripotency on ES cells and prevents their differentiation towards extraembryonic endoderm and trophoctoderm lineages. This protein blocks bone morphogenetic protein-induced 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.

Synonyms:

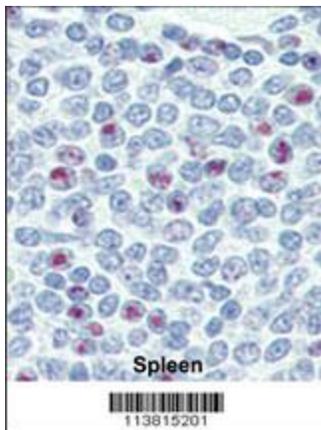
homeobox transcription factor Nanog; homeobox transcription factor Nanog-delta 48; Nanog homeobox

Protein Families:

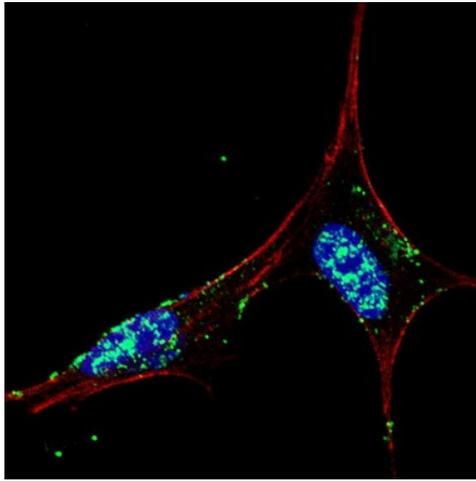
Cancer stem cells, Embryonic stem cells, ES Cell Differentiation/IPS, Induced pluripotent stem cells, Stem cell - Pluripotency

Product images:


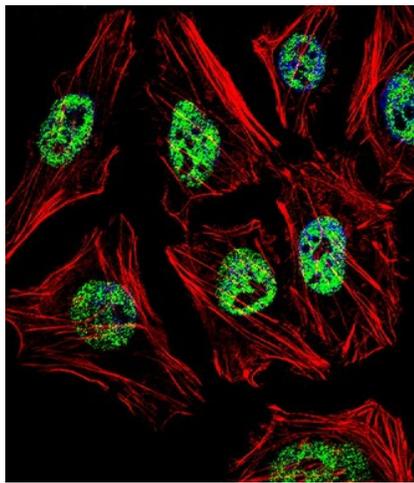
Western blot analysis of anti-NANOG Antibody (N-term) (Cat.#TA302153) in K562 cell line lysates (35ug/lane). NANOG (arrow) was detected using the purified Pab. Western blot analysis of NANOG (arrow) using rabbit polyclonal NANOG Antibody (N-term) (Cat.#TA302153). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the NANOG gene (Lane 2) (Origene Technologies).



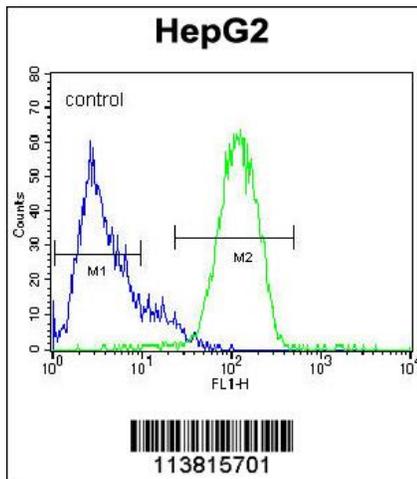
Formalin-fixed and paraffin-embedded human Spleen tissue reacted with NANOG Antibody (N-term) (Cat.#TA302153), which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



IF image of SY5Y cells stained with TA302153 NANOG (N-term) antibody. SY5Y cells were incubated with TA302153 NANOG (N-term) primary antibody (1:500, 2 h at RT). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:1000, 1h). Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin. Nuclei were counterstained with Hoechst 33342 (blue). Nanog immunoreactivity is localized mainly to the nuclei of the SY5Y cells.



IF image of Hela cell stained with NANOG Antibody (N-term) (Cat#TA302153). Hela cells were incubated with NANOG primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400). Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7 units/ml). Nuclei were counterstained with DAPI (blue). NANOG immunoreactivity is localized to Nucleus significantly.



NANOG Antibody (N-term) (Cat. #TA302153) flow cytometric analysis of HepG2 cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.