

# Nanog (1E6C4): sc-293121

## BACKGROUND

Nanog (from "Tir Na Nog", the mythologic celtic land of the ever young) is a divergent homeodomain protein that directs pluripotency and differentiation of undifferentiated embryonic stem cells. Nanog mRNA is present in pluripotent mouse and human cell lines and absent from differentiated cells. Human Nanog protein shares 52% overall amino acid identity with the mouse protein and 85% identity in the homeodomain. Human Nanog maps to gene locus 12p13.31, whereas mouse Nanog maps to gene loci 6 F2. Murine embryonic Nanog expression is detected in the inner cell mass of the blastocyst. High levels of human Nanog expression have been detected by Northern analysis in the undifferentiated NTERA-2 cl.D1 embryonal carcinoma cell line.

## CHROMOSOMAL LOCATION

Genetic locus: NANOG (human) mapping to 12p13.31.

## SOURCE

Nanog (1E6C4) is a mouse monoclonal antibody raised against amino acids 20-166 corresponding to recombinant Nanog of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Nanog (1E6C4) is available conjugated to agarose (sc-293121 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-293121 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-293121 PE), fluorescein (sc-293121 FITC), Alexa Fluor® 488 (sc-293121 AF488), Alexa Fluor® 546 (sc-293121 AF546), Alexa Fluor® 594 (sc-293121 AF594) or Alexa Fluor® 647 (sc-293121 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-293121 AF680) or Alexa Fluor® 790 (sc-293121 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

Nanog (1E6C4) is recommended for detection of Nanog of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Nanog siRNA (h): sc-43958, Nanog shRNA Plasmid (h): sc-43958-SH and Nanog shRNA (h) Lentiviral Particles: sc-43958-V.

Molecular Weight of Nanog: 40 kDa.

Positive Controls: Nanog (h): 293T Lysate: sc-369869.

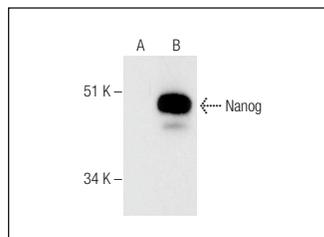
## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

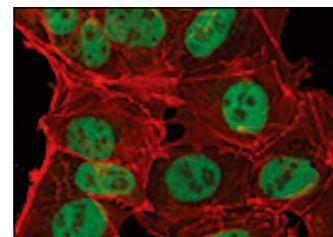
## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## DATA



Nanog (1E6C4): sc-293121. Western blot analysis of Nanog expression in non-transfected: sc-117752 (A) and human Nanog transfected: sc-369869 (B) 293T whole cell lysates.



Nanog (1E6C4): sc-293121. Immunofluorescence staining of NTERA-2 cells. Confocal microscopy showing cells labeled by anti-Nanog (1E6C4) (green) and Actin filaments labeled with DY-554 phalloidin (red).

## SELECT PRODUCT CITATIONS

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- Ning, B., et al. 2017. USP26 functions as a negative regulator of cellular reprogramming by stabilising PRC1 complex components. *Nat. Commun.* 8: 349.
- Zhang, B., et al. 2018. A novel method to isolate mesenchymal stem cells from mouse umbilical cord. *Mol. Med. Rep.* 17: 861-869.
- Daoutsali, E., et al. 2019. Generation of 3 human induced pluripotent stem cell lines LUMC:005-A, B and C from a hereditary cerebral hemorrhage with amyloidosis-Dutch type patient. *Stem Cell Res.* 34: 101359.
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- Radhakrishnan, S., et al. 2019. *In vitro* transdifferentiation of human adipose tissue-derived stem cells to neural lineage cells—a stage-specific incidence. *Adipocyte* 8: 164-177.
- Pitrone, M., et al. 2019. Knockdown of NANOG reduces cell proliferation and induces G<sub>0</sub>/G<sub>1</sub> cell cycle arrest in human adipose stem cells. *Int. J. Mol. Sci.* 20: 2580.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.