

#3580 Store at -20°C

Nanog Antibody

✓ 100 µl
(10 western blots)

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rev. 05/21/10

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IF-IC, F, ChIP Endogenous	H	42 kDa	Rabbit**

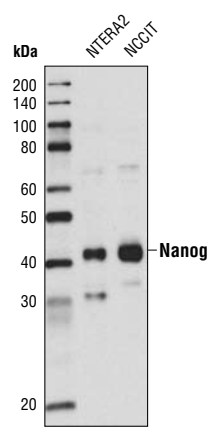
Background: Nanog is a homeodomain containing transcription factor that is essential for the maintenance of pluripotency and self renewal in embryonic stem cells (1). Nanog expression is controlled by a network of factors including Sox2 and the key pluripotency regulator Oct-4 (1). Recent advances in somatic cell reprogramming have utilized viral expression of combinations of transcription factors including Nanog, Oct-4, Sox2, KLF4, c-Myc and Lin28 (2,3).

Specificity/Sensitivity: Nanog Antibody detects endogenous levels of total nanog protein.

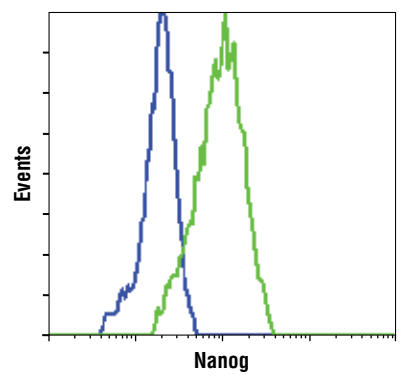
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to amino acid sequence at the N-terminus of human nanog. Antibodies are purified by Protein A and peptide affinity chromatography.

Background References:

- (1) Kim, J. et al. (2008) *Cell* 132, 1049–61.
- (2) Takahashi, K. et al. (2007) *Nat Protoc* 2, 3081–9.
- (3) Yu, J. et al. (2007) *Science* 318, 1917–20.

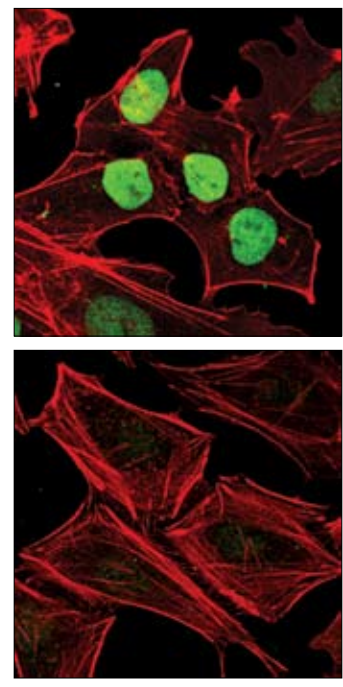


Western blot analysis of extracts of NTERA2 and NCCIT cells using Nanog Antibody.



Flow cytometric analysis of HeLa cells (blue) and NTERA2 cells (green) using Nanog Antibody.

Confocal immunofluorescent analysis of NTERA2 cells (upper) and HeLa cells (lower) using Nanog Antibody (green). Actin filaments have been labeled with DY-554 phalloidin (red).



Entrez-Gene ID #79923
Swiss-Prot Acc. #Q9H9S0

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C.
Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

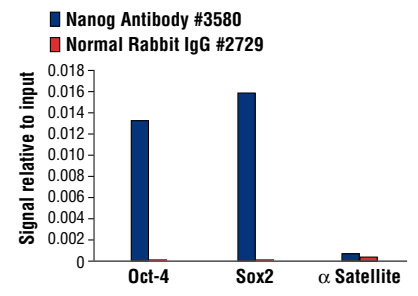
**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunofluorescence (IF-IC)	1:800
Flow Cytometry	1:400
Chromatin IP	1:25

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.



Chromatin immunoprecipitations were performed with cross-linked chromatin from 4×10^6 NCCIT cells and either 20 µl of Nanog Antibody or 2 µl of Normal Rabbit IgG #2729 using SimpleChIP™ Enzymatic Chromatin IP Kit (Magnetic Beads) #9003. The enriched DNA was quantified by real-time PCR using SimpleChIP™ Human Oct-4 Promoter Primers #4641, SimpleChIP™ Human Sox2 Promoter Primers #4649, and SimpleChIP™ Human α Satellite Repeat Primers #4486. The amount of immunoprecipitated DNA in each sample is represented as signal relative to the total amount of input chromatin, which is equivalent to one.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.