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#3580

# Nanog Antibody

**For Research Use Only. Not for Use in Diagnostic Procedures.**

<b>Applications:</b> W, IF-IC, FC-FP, ChIP	<b>Reactivity:</b> H	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 42	<b>Source/Isotype:</b> Rabbit
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## Product Usage Information

For optimal ChIP results, use 20 µl of antibody and 10 µg of chromatin (approximately 4 x 10<sup>6</sup> cells) per IP. This antibody has been validated using SimpleChIP<sup>®</sup> Enzymatic Chromatin IP Kits.

### Application

Application	Dilution
Western Blotting	1:1000
Immunofluorescence (Immunocytochemistry)	1:800
Flow Cytometry (Fixed/Permeabilized)	1:400
Chromatin IP	1:25

## 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.

## 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

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).

## Background References

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

## Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

## Western Blot Buffer

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

## Applications Key

**W:** Western Blotting **IF-IC:** Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized) **ChIP:** Chromatin IP

## Cross-Reactivity Key

**H:** Human

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