

#8822 Store at -20C

Nanog (D2A3) XP[®] Rabbit mAb

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

Applications: W, IP, IF-IC, FC-FP, ChIP, ChIP-seq, C&R	Reactivity: M	Sensitivity: Endogenous	MW (kDa): 29-42	Source/Isotype: Rabbit IgG	UniProt ID: #Q80Z64	Entrez-Gene Id: 71950
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Product Usage Information

For optimal ChIP and ChIP-seq results, use 5 µl of antibody and 10 µg of chromatin (approximately 4 x 10⁶ cells) per IP. This antibody has been validated using SimpleChIP[®] Enzymatic Chromatin IP Kits.

The CUT&RUN dilution was determined using CUT&RUN Assay Kit #86652.

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100
Immunofluorescence (Immunocytochemistry)	1:1000
Flow Cytometry (Fixed/Permeabilized)	1:200
Chromatin IP	1:100
Chromatin IP-seq	1:100
CUT&RUN	1:100

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #75840.

Specificity/Sensitivity

Nanog (D2A3) XP[®] Rabbit mAb recognizes endogenous levels of total mouse nanog protein. This antibody is expected to recognize nanog 1a and 1b isoforms. This antibody does not cross-react with human nanog.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of mouse nanog protein.

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

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.

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 **IP:** Immunoprecipitation **IF-IC:** Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized) **ChIP:** Chromatin IP **ChIP-seq:** Chromatin IP-seq **C&R:** CUT&RUN

Cross-Reactivity Key

M: Mouse

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