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#5232

## Nanog (D73G4) XP<sup>®</sup> Rabbit mAb (ChIP Formulated)

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

<b>Applications:</b> ChIP, ChIP-seq, C&R, C&T	<b>Reactivity:</b> H	<b>Sensitivity:</b> Endogenous	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #Q9H9S0	<b>Entrez-Gene Id:</b> 79923
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### Product Usage Information

For optimal ChIP and ChIP-seq results, use 10 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.

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

The CUT&Tag dilution was determined using CUT&Tag Assay Kit #77552.

Application	Dilution
Chromatin IP	1:50
Chromatin IP-seq	1:50
CUT&RUN	1:50
CUT&Tag	1:50

### 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.

### Specificity/Sensitivity

Nanog (D73G4) XP<sup>®</sup> Rabbit mAb (ChIP Formulated) detects endogenous levels of total nanog protein.

### Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to the amino terminus of human 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

- 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).

### Applications Key

**ChIP:** Chromatin IP **ChIP-seq:** Chromatin IP-seq **C&R:** CUT&RUN **C&T:** CUT&Tag

### Cross-Reactivity Key

**H:** Human

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