Product Specification Sheet

Product Name	Stemgent® Nanog Antibody (Affinity Purified), Rabbit anti-Mouse/Human
Description	Nanog is a member of the homeobox family of DNA binding transcription factors that has been shown to maintain embryonic stem (ES) cell self-renewal independently of leukemia inhibitory factor (LIF) and Stat3. Nanog mRNA is present in pluripotent mouse and human cell lines and is absent from differentiated cells. Functionally, Nanog works together with other key pluripotent factors (Oct4, Sox2, and Lin28) to reprogram human fibroblasts and generate induced pluripotent stem (iPS) cells. These key factors form a regulatory network to support or limit each other's expression level, maintaining the properties of ES cells. The Nanog Antibody (Affinity Purified) was screened on human and mouse ES cells using immunocytochemistry and selected as the best Nanog antibody available for researchers needing to demonstrate pluripotency.
Catalog Number	09-0020
Size	100 µl
Concentration	0.5 mg/ml
Clone	Polyclonal
Isotype	Rabbit IgG
Immunogen	Recombinant protein fragment containing a sequence corresponding to a region within amino acids 109 and 300 of human Nanog
Reactivity	Mouse, Human
Preparation	This antibody was purified by antigen affinity chromatography.
Formulation	Phosphate-buffered solution, pH 7.2, 1% BSA, 20% glycerol, and 0.01% thimerosal
Storage and Stability	Store at 4˚C protected from light. Do not freeze. Stable for 6 months from date of receipt when stored as directed.
Quality Control	Tested by immunocytochemistry to ensure product quality (**Figure 1**).
Recommended Usage	For immunocytochemistry, the suggested use of this antibody is a 1:100 dilution. For an application specific protocol, please reference *Protocol: Immunocytochemistry* online at www.stemgent.com/support/protocols.

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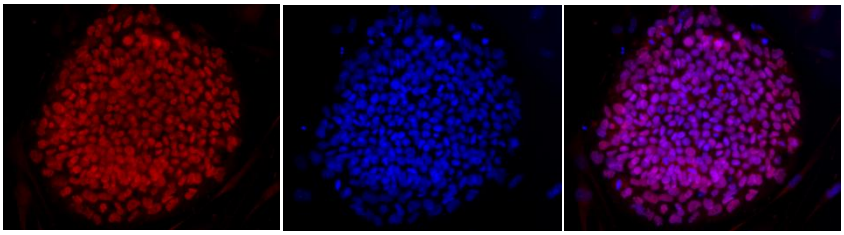

Figure 1. Immunocytochemistry analysis of Nanog on H1 human ES cells. Cells were treated with Nanog Antibody (Affinity Purified) using a 1:100 dilution followed by a secondary Cy™3 conjugated antibody (red). DAPI staining was performed to visualize nuclei (blue).

References

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2. Chambers, I., Colby, D., Robertson, M., Nichols, J., Lee, S., Tweedie, S., and Smith, A. (2003) Functional expression cloning of Nanog, a pluripotency sustaining factor in embryonic stem cells. Cell 113: 643-655.
3. Yu, J., Vodyanik, M.A., Smuga-Otto, K., Antosiewicz-Bourget, J., Frane, J.L., Tian, S., Nie, J., Jonsdottir, G.A., Ruotti, V., Stewart, R., Slukvin, I.I., and Thomson, J.A. (2007) Induced pluripotent stem cell lines derived from human somatic cells. Science 318: 1917-1920.
4. Pan, G., and Thomson, J.A. (2007) Nanog and transcriptional networks in embryonic stem cell pluripotency. Cell Res. 17: 42-49.
5. Kim, J., Chu, J., Shen, X., Wang, J., and Orkin, S.H. (2008) An extended transcriptional network for pluripotency of embryonic stem cells. Cell 132: 1049-1061.

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