



Product Specification Sheet

Product Name	Stemgent® SSEA-4 Antibody (Purified), Mouse anti-Human
Description	Stage-specific embryonic antigen-4 (SSEA-4) is expressed in a variety of human cell lines including embryonic carcinoma (EC), embryonic stem (ES), and induced pluripotent stem (iPS) cells. SSEA-4 is down-regulated upon differentiation, making it a widely used marker to characterize human ES cells and monitor their differentiation. In mouse, SSEA-4 is expressed on oocytes and early cleavage-stage embryos, but not on EC or ES cells.
Catalog Number	09-0006
Size	100 µl
Concentration	0.5 mg/ml
Clone	MC-813-70
Isotype	Mouse IgG3
Immunogen	Human embryonal carcinoma cell line 2102Ep
Reactivity	Human
Preparation	This antibody was purified by affinity chromatography.
Formulation	Phosphate-buffered solution, pH 7.2, and 0.09% sodium azide
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 (Figure 1) and flow cytometry (Figure 2) to ensure product quality.
Recommended Usage	The suggested use of this antibody is a 1:100 dilution for immunocytochemistry and 0.25 µg per 1x10 ⁶ viable cells in 100 µl for flow cytometry. For application specific protocols, please reference <i>Protocol: Immunocytochemistry</i> and <i>Protocol: Flow Cytometry</i> online at www.stemgent.com/support/protocols .

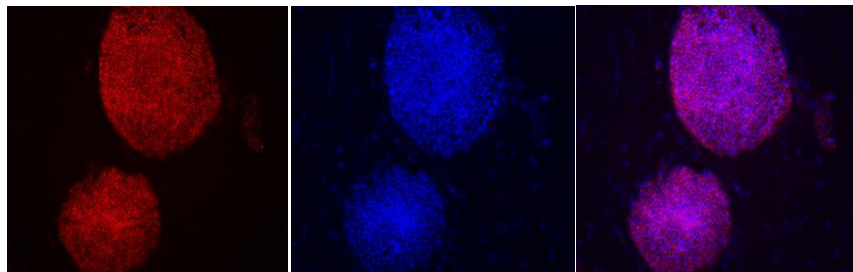


Figure 1. Immunocytochemistry analysis of SSEA-4 on H9 human ES cells. Cells were stained with SSEA-4 Antibody (Purified) at a 1:100 dilution followed by a Cy[™] 3 conjugated secondary antibody (red). DAPI staining was performed to visualize nuclei (blue).

For research use only. Not for use in diagnostic procedures.



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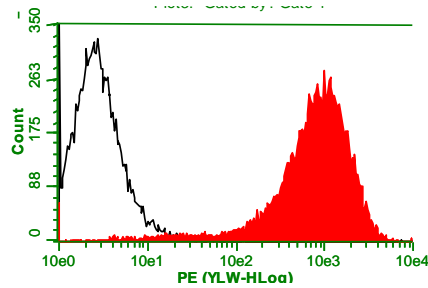


Figure 2. Flow cytometry analysis of SSEA-4 on H9 human ES cells. Red histogram represents SSEA-4 Antibody (Purified) and open histogram represents isotype control at the same concentration.

References

1. Kannagi, R., Cochran, N.A., Ishigami, F., Hakomori, S., Andrews, P.W., Knowles, B.B., and Solter, D. (1983) Stage-specific embryonic antigens (SSEA-3 and -4) are epitopes of a unique globo-series ganglioside isolated from human teratocarcinoma cells. *The EMBO J.* 2: 2355-2361.
2. Takahashi, K., Tanabe, K., Ohnuki, M., Narita, M., Ichisaka, T., Tomoda, K., and Yamanaka, S. (2007) Induction of pluripotent stem cells from adult human fibroblasts by defined factors. *Cell* 131: 861-872.
3. Henderson, J.K., Draper, J.S., Baillie, H.S., Fishel, S., Thomson, J.A., Moore, H., and Andrews, P.W. (2002) Preimplantation human embryos and embryonic stem cells show comparable expression of stage-specific embryonic antigens. *Stem Cells* 20: 329-337.
4. Battula, V.L., Bareiss, P.M., Treml, S., Conrad, S., Albert, I., Hojak, S., Abele, H., Schewe, B., Just, L., Skutella, T., and Buhring, H.J. (2007) Human placenta and bone marrow derived MSC cultured in serum-free, b-FGF-containing medium express cell surface frizzled-9 and SSEA-4 and give rise to multilineage differentiation. *Differentiation* 75: 279-291.

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