



Qty: 100 µg/200 µL

Mouse anti-SSEA4

Catalog No. 41-4000

Lot No.

Mouse anti-SSEA4

FORM

This monoclonal antibody is supplied as a 200 µL aliquot at a concentration of 0.5 mg/mL in PBS, pH 7.4, containing 0.1% sodium azide. This antibody is highly purified from mouse ascites by protein A chromatography.

CLONE: MC813-70

ISOTYPE: Mouse IgG3

IMMUNOGEN

2102Ep human EC cells

SPECIFICITY

This antibody is specific for the SSEA4 (stage-specific embryonic antigen 4) epitope. On Immunofluorescence and Flow cytometry this epitope is recognized on the cell surface.

REACTIVITY

Reactivity has been confirmed with human NTERA-2 (Flow cytometry), Shef-4 ES cells (Immunofluorescence), and human and mouse embryos.¹

Sample	Immuno- fluorescence	Flow Cytometry
Human	+++	+++
Mouse	+++ ¹	N/A

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

Immunofluorescence: 5-10 µg/mL

Flow Cytometry: 0.25-1 µg/reaction

STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

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BACKGROUND

Stage-specific embryonic antigens (SSEAs) are cell-surface molecules that exhibit lineage-restricted patterns of expression during development. SSEA1 provides a surface marker for mouse and human primordial germ cells and mouse embryonic stem cells. SSEA3 and SSEA4 act as surface markers for human embryonic stem cells (ES). The epitope recognized by the SSEA4 antibody is also expressed on the surface of human embryonal carcinoma (EC) cells, human embryonic germ cells (EG), mesenchymal stem cells (MSC),² and in early neuroepithelium.³ In addition to recognizing human and mouse cells, germline stem cell-like cells from both juvenile and adult chicken testes were successfully stained with this antibody.⁴ Using series of purified glycolipids, a more refined epitope corresponding to a unique globo-series ganglioside was characterized.⁵ Besides being expressed in embryonic cells, this epitope is also present in human erythrocytes.⁵ This antibody provides an extremely useful tool for looking into differential expression of SSEAs in various embryonic cell populations.

REFERENCES

1. Henderson JK, et al. *Stem Cells* 20(4):329-37, 2002.
2. Gang EJ, et al. *Blood* 2006 Oct 24; [Epub ahead of print]
3. Barraud P, et al. *J Neurosci Res* 85(2):250-259, 2006
4. Jung JG, et al. *Biol Reprod* 76(1):173-82, 2007
5. Kannagi R, et al. *EMBO J.* 2(12):2355-61, 1983.

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rec-Protein G	Sepharose [®] 4B	10-1241

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TRITC	81-6114	81-6514
Cy [™] 3	81-6115	81-6515
Cy [™] 5	81-6116	81-6516
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AP	81-6122	81-6522
Biotin	81-6140	81-6540

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