FITC Mouse anti-SSEA-4

Product Information

Material Number: 560126
Alternate Name: Stage-Specific Embryonic Antigen-4
Size: 100 tests
Vol. per Test: 20 µl
Clone: MC813-70
Immunogen: Human Teratocarcinoma Cell Line
Isotype: Mouse (BALB/c) IgG3, κ
Reactivity: QC Testing: Human
Reported Reactivity: Mouse
Storage Buffer: Aqueous buffered solution containing BSA, protein stabilizer, and ≤0.09% sodium azide.

Description

The MC813-70 monoclonal antibody reacts with Stage-Specific Embryonic Antigen-4 (SSEA-4), a carbohydrate epitope on the major ganglioside, but not the neutral glycolipid, of human teratocarcinoma cells. As its name implies, the expression of SSEA-4 is stage-specific and can be used to characterize embryonic cells and monitor their differentiation. However, its expression pattern differs in the human and mouse. In the human, SSEA-4 is found on teratocarcinoma (embryonal carcinoma or EC), embryonic inner cell mass (ICM), embryonic stem (ES) cells, and the K562 erythromyeloid leukemia cell line. As human stem cells undergo differentiation, SSEA-4 expression is lost. In the mouse, SSEA-4 is found on oocytes and early cleavage-stage embryos, and primitive ectoderm, but not on EC, ICM, or ES cells. In some cases, SSEA-4 expression appears upon differentiation of mouse EC or ES cells.

Flow cytometric analysis of FITC Mouse Anti-SSEA-4 on H9 cells. H9 human embryonic stem cells were stained with either FITC Mouse Anti-SSEA-4 (solid line) or FITC mouse IgG3 (A112-3) isotype control (catalog number 559806, dashed line), incubated in the dark for 20 minutes at room temperature and analyzed by flow cytometry. Flow cytometry was performed on a BD FACS™ Calibur™ System.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The antibody was conjugated with FITC under optimum conditions, and unreacted FITC was removed.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application
Flow cytometry Routinely Tested

Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>559806</td>
<td>FITC Mouse IgG3, κ Isotype Control</td>
<td>0.25 mg</td>
<td>A112-3</td>
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<tr>
<td>555578</td>
<td>FITC Mouse IgG3, κ Isotype Control</td>
<td>100 tests</td>
<td>J606</td>
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<tr>
<td>554656</td>
<td>Stain Buffer (FBS)</td>
<td>500 ml</td>
<td>(none)</td>
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</table>

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Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use $1 \times 10^6$ cells in a 100-µl experimental sample (a test).

2. An isotype control should be used at the same concentration as the antibody of interest.

3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.


References


