Technical Data Sheet

PE Rat Anti-SSEA-3

Product Information

Material Number: 560879
Size: 25 Tests
Vol. per Test: 20 µl
Clone: MC-631 (also known as MC631)
Immunogen: Mouse Embryos
Isotype: Rat (F344) IgM
Reactivity: QC Testing: Human

Storage Buffer: Aqueous buffered solution containing BSA, protein stabilizer, and ≤0.09% sodium azide.

Description

The MC-631 monoclonal antibody reacts with Stage-Specific Embryonic Antigen-3 (SSEA-3), a carbohydrate epitope on the major ganglioside, but not the neutral glycolipid, of mouse embryos and human teratocarcinoma cells. As its name implies, the expression of SSEA-3 is stage-specific and can be used to characterize embryonic cells and monitor their differentiation. However, its expression pattern differs between human and mouse. In the human, SSEA-3 is found on teratocarcinoma (embryonal carcinoma or EC), embryonic inner cell mass (ICM), embryonic stem (ES) cells, and erythrocytes. As human stem cells undergo differentiation, SSEA-3 expression diminishes. In the mouse, SSEA-3 is found on oocytes, ova, zygotes, early cleavage-stage embryos, early blastocysts, ICM, primitive endoderm, and adult kidneys, but not on EC or ES cells.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application
Flow cytometry  Routinely Tested

Flow cytometric analysis of SSEA-3 on H9 human embryonic stem cells. H9 human stem cells were stained with either PE Rat IgM, κ Isotype Control (Cat. No. 553943; dashed line histogram), or PE Rat Anti-SSEA-3 (Cat. No 560879; solid line histogram). Fluorescence histograms were derived from gated events based on the forward and side light scattering characteristics for viable H9 cells. Flow cytometry was performed on a BD FACSCalibur™.
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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. 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.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

References