# Anti-Human SSEA-4 Antibody, Clone MC-813-70

## Antibodies

Mouse monoclonal IgG3 antibody against human, mouse, rat SSEA-4, unconjugated

Catalog #60062

100 µg 0.5 mg/mL

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## Product Description

The MC-813-70 antibody reacts with stage-specific embryonic antigen-4 (SSEA-4), a glycolipid carbohydrate antigen expressed on the surface of human embryonal carcinoma (EC), embryonic germ (EG), undifferentiated embryonic stem (ES) and induced pluripotent stem (iPS) cells, a subset of mesenchymal stem cells, and rhesus monkey ES cell lines. No immunoreactivity is evident with undifferentiated mouse EC, EG, ES and iPS cells. Expression of SSEA-4 is down-regulated following differentiation of human EC, ES and iPS cells. In contrast, the differentiation of mouse EC, ES and iPS cells may be accompanied by an increase in SSEA-4 expression.

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| Target Antigen Name: | SSEA-4 |
| Alternative Names: | Stage-specific embryonic antigen-4 |
| Gene ID: | 330401 |
| Species Reactivity: | Human, Mouse, Rat, Rhesus, Cat, Chicken, Dog, Rabbit |
| Host Species: | Mouse |
| Clonality: | Monoclonal |
| Clone: | MC-813-70 |
| Isotype: | IgG3, kappa |
| Immunogen: | Human embryonal carcinoma cell line 2102Ep |
| Conjugate: | Unconjugated |

## Applications

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| Verified: | CellSep, FC, ICC, IF |
| Reported: | ELISA, FC, ICC, IF, IHC |
| Special Applications: | This antibody clone has been verified for labeling human ES and iPS cells grown in TeSR™-E8™ (Catalog #05940), mTeSR™1 (Catalog #05850) and TeSR™2 (Catalog #05860) and has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Human ES/iPS Cell TRA-1-60 Positive Selection Kit (Catalog #18166). |

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; WB: Western blotting

## Properties

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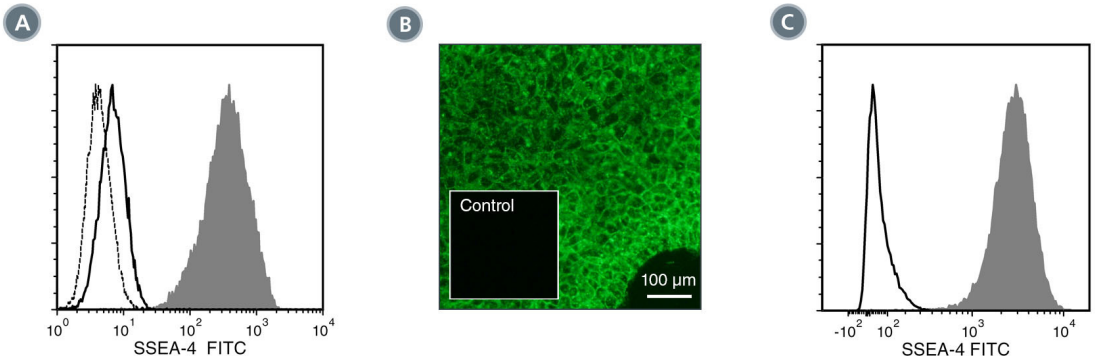
| Formulation: | Phosphate-buffered saline |
| Purification: | The antibody was purified by affinity chromatography. |
| Stability and Storage: | Product stable at 2 - 8°C when stored undiluted. Do not freeze. Addition of 0.1% sodium azide (final) is recommended once the vial has been opened. For product expiry date, please contact techsupport@stemcell.com. |
| Directions for Use: | The suggested use of this antibody is: FC, ≤ 0.5 µg per 1 x 10e6 cells in 100 µL volume; ICC/IF, ≤ 5 µg/mL. It is recommended that the antibody be titrated for optimal perfomance for each application. |

## Data




(A) Flow cytometry analysis of human ES cells (filled histogram) or HT1080 fibrosarcoma cells (negative control; dashed line histogram) labeled with Anti-Human SSEA-4 Antibody, Clone MC-813-70 followed by goat anti-mouse IgG, FITC. Labeling of human ES cells with a mouse IgG3, kappa isotype control antibody followed by goat anti-mouse IgG FITC is shown (solid line histogram).
(B) Human ES cells were cultured in mTeSR™1 on BD Matrigel™-coated glass slides, then fixed and stained with Anti-Human SSEA-4 Antibody, Clone MC-813-70, followed by goat anti-mouse IgG, FITC. Inset shows cells labeled with a mouse IgG3, kappa isotype control antibody.
(C) Flow cytometry analysis of human iPS cells labeled with Anti-Human SSEA-4 Antibody, Clone MC-813-70 followed by goat anti-mouse IgG FITC (filled histogram) or a mouse IgG3, kappa isotype control antibody followed by goat anti-mouse IgG FITC (open histogram).

## Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

## References

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