Antibodies

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

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

Catalog #60062BT

100 µg 0.5 mg/mL

STEMCELL™ TECHNOLOGIES
Scientists Helping Scientists™ | WWW.STEMCELL.COM
TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713
INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM
FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

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.

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:	Biotin

Applications

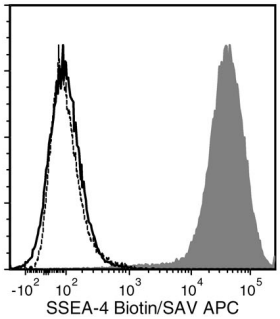
Verified:	FC
Reported:	FC, ICC, IF
Special Applications:	This antibody clone has been verified for labeling human ES and iPS cells grown in TeSR™-E8™ (Catalog #05940), mTeSR™1 (Catalog #85850), and TeSR™2 (Catalog #05860).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Purification:	The antibody was purified by affinity chromatography and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please contact techsupport@stemcell.com.
Directions for Use:	For flow cytometry, the suggested use of this antibody is ≤ 0.125 µg per 1 x 10^6 cells in 100 µL. It is recommended that the antibody be titrated for optimal performance for each application.

Data



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, Biotin, followed by streptavidin (SAV) APC. Labeling of human ES cells with a mouse IgG3, kappa biotin isotype control antibody, followed by SAV APC is shown (solid line histogram).

Related Products

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

References

1. Miyoshi N et al. (2010) Defined factors induce reprogramming of gastrointestinal cancer cells. Proc Natl Acad Sci USA 107(1): 40–5. (IF)
2. Chan EM et al. (2009) Live cell imaging distinguishes bona fide human iPS cells from partially reprogrammed cells. Nat Biotechnol 27(11): 1033–7.
3. King FW et al. (2009) Subpopulations of human embryonic stem cells with distinct tissue-specific fates can be selected from pluripotent cultures. Stem Cells Dev 18(10): 1441–50. (FC)
4. Kuai XL et al. (2009) Differentiation of nonhuman primate embryonic stem cells along neural lineages. Differentiation 77(3): 229–38. (IF)
5. Hockemeyer D et al. (2008) A drug-inducible system for direct reprogramming of human somatic cells to pluripotency. Cell Stem Cell 3(3): 346–353.
6. Ueda S et al. (2008) Establishment of rat embryonic stem cells and making of chimera rats. PLoS One 3(7): e2800. (IF)
7. Henderson JK et al. (2002) Preimplantation human embryos and embryonic stem cells show comparable expression of stage-specific embryonic antigens. Stem Cells 20(4): 329–37. (FC, IF)
8. Thomson JA et al. (1995) Isolation of a primate embryonic stem cell line. Proc Natl Acad Sci USA 92(17): 7844–8. (IHC)
9. Kannagi R et al. (1983) Stage-specific embryonic antigens (SSEA-3 and -4) are epitopes of a unique globo-series ganglioside isolated from human teratocarcinoma cells. EMBO J 2(12): 2355–61.