Anti-Mouse SSEA-3 Antibody, Clone MC-631

Antibodies

Rat monoclonal IgM antibody against human, mouse, rat SSEA-3, unconjugated

Catalog #60061.1 | 25 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-631 antibody reacts with a galactosylgloboside epitope on the stage-specific embryonic antigen-3 (SSEA-3), which is expressed on the surface of human embryonal carcinoma (EC), embryonic germ (EG), undifferentiated embryonic stem (ES), and induced pluripotent stem (iPS) cells, as well as rhesus monkey ES cell lines. No immunoreactivity is evident with undifferentiated mouse EC, EG and ES cells. Expression of SSEA-3 is down regulated following differentiation of ES and EC cells. In contrast, the differentiation of mouse ES and EC cells may be accompanied by an increase in SSEA-3 expression.

Target Antigen Name:	SSEA-3
Alternative Names:	Stage-specific embryonic antigen-3
Gene ID:	93961
Species Reactivity:	Human, Mouse, Rat, Rhesus
Host Species:	Rat (F344)
Clonality:	Monoclonal
Clone:	MC-631
Isotype:	IgM, kappa
Immunogen:	Four to eight-cell stage mouse embryos
Conjugate:	Unconjugated

Applications

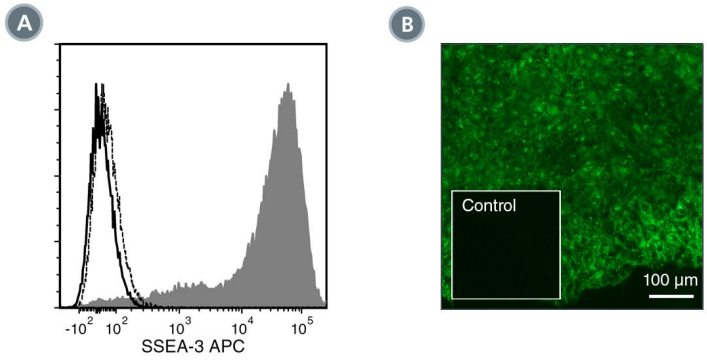
Verified:	FC, ICC, IF
Reported:	ELISA, FC, ICC, IF, IHC
Special Applications:	This antibody clone has been verified for labeling human ES and iPS cells grown in TeSR™-E8™ (Catalog #05940), mTeSR™1 (Catalog #05850) and TeSR™2 (Catalog #05860) and has been verified for purity assessments of cells isolated 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; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer
Purification:	The antibody was purified by column chromatography.
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:	The suggested use of this antibody is: FC, ≤ 0.5 µg per 1 x 10^6 cells in 100 µL volume; ICC/IF, ≤ 5 µg/mL. It is recommended that the antibody be titrated for optimal performance for each application.

Data



(A) Flow cytometry analysis of human ES cells (filled histogram) or fibroblasts (negative control; dashed line histogram) labeled with Anti-Mouse SSEA-3 Antibody, Clone MC-631, followed by Goat Anti-Rat IgM (Heavy Chain) Antibody, Polyclonal, APC (Catalog #60140AZ). Labeling of human ES cells with a rat IgM isotype control antibody, followed by Goat Anti-Rat IgM (Heavy Chain) Antibody, Polyclonal, APC is shown (solid line histogram).
(B) Human ES cells were cultured in mTeSR™1 on Corning® Matrigel®-coated glass slides, then fixed and stained with Anti-Mouse SSEA-3 Antibody, Clone MC-631, followed by Goat Anti-Mouse IgG (H+L) Antibody, Polyclonal, FITC (Catalog #60138FI). Inset shows cells labeled with a rat IgM, kappa isotype control antibody, followed by Goat Anti-Mouse IgG (H+L) Antibody, Polyclonal, FITC.

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

1. Ueda S et al. (2008) Establishment of rat embryonic stem cells and making of chimera rats. PLoS One 3(7): e2800. (IF)
2. Draper JS et al. (2002) Surface antigens of human embryonic stem cells: changes upon differentiation in culture. J Anat 200(3): 249–58. (FC)
3. 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)
4. Andrews PW et al. (1996) Comparative analysis of cell surface antigens expressed by cell lines derived from human germ cell tumours. Int J Cancer 66(6): 806–16. (FC)
5. Thomson JA et al. (1995) Isolation of a primate embryonic stem cell line. Proc Natl Acad Sci USA 92(17): 7844–8. (IHC)
6. 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.
7. Andrews PW et al. (1982) Cell-surface antigens of a clonal human embryonal carcinoma cell line: morphological and antigenic differentiation in culture. Int J Cancer 29(5): 523–31.