Anti-Mouse SSEA-1 (CD15) Antibody, Clone MC-480

Antibodies

Mouse monoclonal IgM antibody against human, mouse, rat SSEA-1 (CD15), unconjugated

Catalog #60060

100 µg 0.5 mg/mL

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Product Description

The MC-480 antibody reacts with a terminal carbohydrate epitope, stage-specific embryonic antigen-1 (SSEA-1), which is expressed on a large-molecular-mass (> 200 kDa) glycoprotein on the surface of early mouse embryos, mouse embryonal carcinoma (EC), embryonic stem (ES) cells and mouse and human embryonic germ (EG) cells. SSEA-1 is not expressed on undifferentiated human EC, ES or induced pluripotent stem (iPS) cells, or rhesus monkey ES cell lines. Its expression on mouse ES cells is decreased upon differentiation, whereas in humans, expression is upregulated during differentiation. SSEA-1 is also found on adult human granulocytes and monocytes, where it is denoted CD15, and the MC-480 antibody recognizes the CD15 marker on these cell types. It has been reported that SSEA-1 has roles in cell adhesion and migration, and regulation of cell differentiation.

Target Antigen Name:	SSEA-1 (CD15)
Alternative Names:	3-FAL, CD15, Lewis X, SSEA1, Stage-specific embryonic antigen 1, X-hapten
Gene ID:	14345
Species Reactivity:	Human, Mouse, Rat
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	MC-480
Isotype:	IgM, kappa
Immunogen:	Mouse F9 teratocarcinoma cells (X-irradiated)
Conjugate:	Unconjugated

Applications

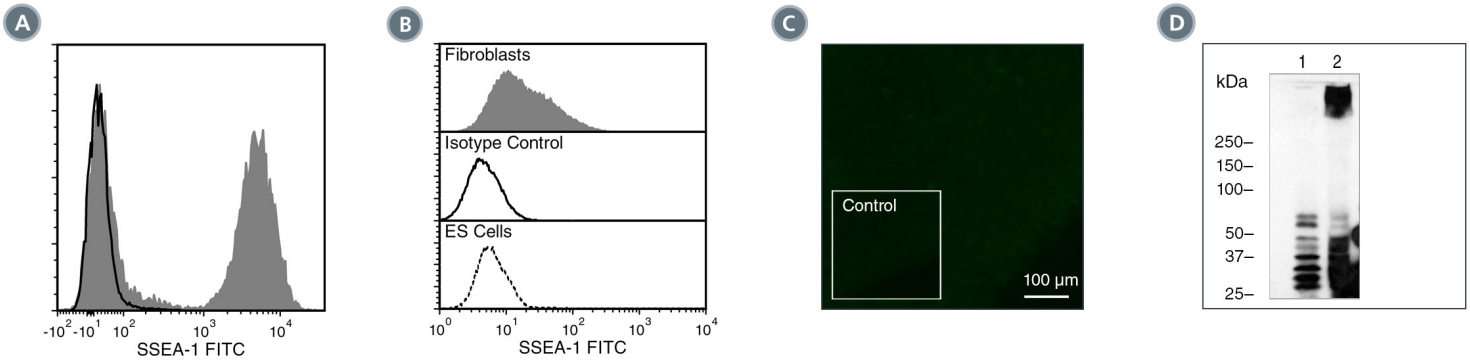
Verified:	CellSep, FC, ICC, IF, WB
Reported:	FC, ICC, IF, IHC, IP, WB
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ HLA Whole Blood CD15 Positive Selection Kit (Catalog #18681HLA; partial blocking may be observed), and 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.
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, ≤ 1 µg per 1 x 10^6 cells in 100 µL or per 100 µL of whole blood; ICC/IF, ≤ 10 µg/mL; WB, ≤ 2 µg/mL. It is recommended that the antibody be titrated for optimal perfomance for each application.

Data



(A) Flow cytometry analysis of human whole blood nucleated cells labeled with Anti-Human SSEA-1 (CD15) Antibody, Clone MC-480, followed by Goat Anti-Mouse IgG (H+L) Antibody, Polyclonal, FITC (Catalog #60138FI) (filled histogram), or Mouse IgM, kappa Isotype Control Antibody, Clone MM-30 (Catalog #60069), followed by Goat Anti-Mouse IgG (H+L) Antibody, Polyclonal, FITC (solid line histogram). SSEA-1 is highly expressed on granulocytes.
(B) Flow cytometry analysis of human HT1080 fibrosarcoma cells labeled with Anti-Human SSEA-1 (CD15) Antibody, Clone MC-480, followed by goat anti-mouse IgG, FITC (filled histogram). Labeling of human HT1080 fibrosarcoma cells (solid line histogram) or H1 ES cells (negative control; dashed line histogram) with a mouse IgM, kappa isotype control antibody (Anti-Human TRA-1-60 Antibody, Clone TRA-1-60R; Catalog #60064) is shown.
(C) Human ES cells were cultured in mTeSR™1 on Corning® Matrigel®-coated glass slides, then fixed and labeled with Anti-Human SSEA-1 (CD15) Antibody, Clone MC-480, followed by goat anti-mouse IgG, FITC. Inset shows cells labeled with Mouse IgM, kappa Isotype Control Antibody, Clone MM-30, followed by goat anti-mouse IgG, FITC. SSEA-1 is not expressed on undifferentiated human ES cells.
(D) Western blot analysis of denatured/reduced cell lysates from human ES cells (negative control; lane 1) or HT1080 fibrosarcoma cells (lane 2) with Anti-Human SSEA-1 (CD15) Antibody, Clone MC-480.

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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