

SSEA4 Monoclonal Antibody (MC-813-70), DyLight™ 650

Catalog Number MA1-021-D650

Product data sheet

| Details | | Species Reactivity | |
|--------------------|--|--|------------|
| Size | 100 µL | Species reactivity | Human |
| Host/Isotope | Mouse / IgG3 | Tested Applications | |
| Class | Monoclonal | Flow Cytometry (Flow) | 1:50-1:500 |
| Type | Antibody | Immunocytochemistry (ICC/IF) | 1:10-1:100 |
| Clone | MC-813-70 | * Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls. | |
| Immunogen | human embryonal carcinoma cell line 2102Ep | | |
| Conjugate | DyLight™ 650 | | |
| Form | Liquid | | |
| Concentration | 1 mg/mL | | |
| Purification | Protein A | | |
| Storage buffer | PBS with proprietary stabilizer | | |
| Contains | 0.02% sodium azide | | |
| Storage Conditions | 4° C, do not freeze | | |

Product specific information

MA1-021-D650 has been successfully used in ICC/IF and flow cytometry applications on human samples.

Background/Target Information

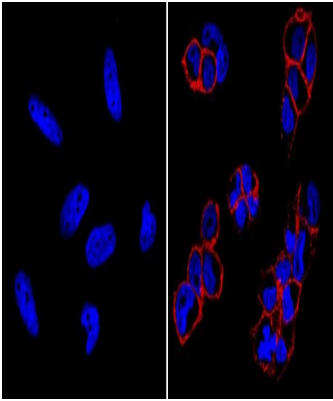
SSEA-4 (Stage-specific embryonic antigen 4) is a cell surface antigen, expressed along with SSEA-3, TRA-1-60 and TRA-1-81 in embryonic stem cells, embryonal carcinoma cells and induced pluripotent stem cells (iPS). In human cells, these surface markers are down-regulated during the differentiation process, while SSEA-1 is absent in undifferentiated human stem cells and upregulated on the cell surface after retinoic acid mediated differentiation. Conversely, in mouse stem cells, SSEA-1 expression decreases with differentiation while SSEA-3 and SSEA-4 expression increase.

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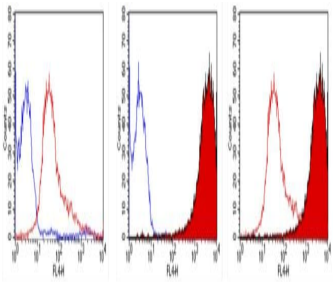
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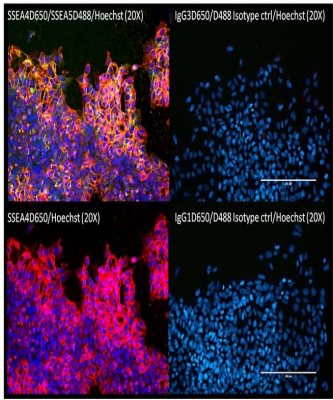
SSEA4 Antibody (MA1-021-D650) in ICC/IF

Immunofluorescent analysis of SSEA-4 (red) showing membrane staining of NCCIT cells (right panel) compared to negative HeLa cell control (left panel). The cells were fixed with formalin for 15 minutes, washed, and then blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with a DyLight 650-conjugated SSEA-4 monoclonal antibody (Product # MA1-021-D650) in 3% BSA-PBS at a dilution of 1:50 and incubated for 1 hour at 37C in the dark. Nuclei (both panels, blue) were stained with DAPI. Images were taken at 60X magnification.



SSEA4 Antibody (MA1-021-D650) in Flow

Flow cytometry analysis of SSEA-4 in NCCIT (red filled histogram) and HeLa cells (red unfilled histogram) compared to unstained cells (blue histogram). Positive staining is observed on NCCIT cells when compared to no antibody control (middle panel) and to SSEA-4-negative HeLa cells (right panel). Cells were fixed with 2% paraformaldehyde and washed with PBS. Cells were blocked with 2% BSA-PBS for 30 minutes at room temperature and incubated with a DyLight 650-conjugated SSEA-4 monoclonal antibody (Product # MA1-021-D650) in 2% BSA-PBS at a dilution of 1:100 for 60 minutes at room temperature. Cells were washed and re-suspended in PBS for FACS analysis.



SSEA4 Antibody (MA1-021-D650) in ICC/IF

Imunofluorescent analysis of SSEA4 (red) in human episomal iPSC cells. Cells were grown on vitronectin coated plates, fixed with 4% paraformaldehyde for 15 minutes, and blocked with 3% Blocker BSA (Product # 37525) for 30 minutes at room temperature. Cells were stained with DyLight 650-conjugated SSEA4 monoclonal antibody (left panels, Product # MA1-021-D650) or DyLight 650-conjugated Mouse IgG3 isotype control antibody (top right panel, Product # MA1-190-D650), at a dilution of 1:50 and incubated for 1 hour at room temperature. Nuclei (blue) were stained with Hoechst 33342 dye (Product # 62249). Images were taken on an EVOS FL Imaging system at 20X magnification.

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