## Overview

**Product name**
Anti-SSEA1 antibody [MC-480]

**Description**
Mouse monoclonal [MC-480] to SSEA1

**Host species**
Mouse

**Tested applications**
Suitable for: IHC-FoFr, ICC/IF, IP, IHC-P, IHC-FrFl, Flow Cyt

**Species reactivity**
Reacts with: Mouse

**Immunogen**
F9 teratocarcinoma stem cells (X-irradiated).

**Positive control**
Mouse embryonic carcinoma cell lines positive for SSEA1 include: F9, PCC4, ND-1, SCC1, NG2, LT5V, MH-15, FA-25. Cell lines negative for SSEA1 include: PYS-2, OTT6050f, B3T3SV, C57SV, K129SV, KCA, QAIB, BW5147. This antibody gave a positive result in IHC in the following FFPE tissue: Mouse normal brain.

**General notes**
This antibody clone is manufactured by Abcam.

If you require this antibody in a particular buffer formulation or a particular conjugate for your experiments, please contact orders@abcam.com or you can find further information [here](#).

## Properties

**Form**
Liquid

**Storage instructions**
Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

**Storage buffer**
pH: 7.40
Preservative: 0.02% Sodium azide
Constituents: PBS, 6.97% L-Arginine

**Purity**
Tissue culture supernatant

**Purification notes**
Tissue culture supernatant was cross flow concentrated and buffer exchanged to PBS

**Clonality**
Monoclonal

**Clone number**
MC-480

**Myeloma**
P3-x63-Ag8

**Isotype**
IgM

**Light chain type**
kappa
Relevance
Stage-specific embryonic antigen-1 (SSEA-1) was described and named as part of a series of embryonic antigens, defined by monoclonal antibodies isolated in the lab of Prof. Davor Solter and Prof. Barbara Knowles (Solter D and Knowles B.B, 1978, PNAS 75:5565). The anti SSEA-1 monoclonal antibody detects a carbohydrate epitope, which is first present on blastomeres of the 8-cell mouse embryo. It is also present on the cell surface of mouse embryonic stem (ES) cells, mouse embryonal carcinoma (EC) cells and both mouse and human embryonic germ (EG) cells. SSEA1 expression decreases as mouse ES cells differentiate but increases during the differentiation of human ES and EC cells. This antigen is also found on the cell surface of human neutrophils and myeloid leukemias, where it’s expression pattern is likened to that of CD15. However, it is currently believed that the expression pattern of SSEA1 differs from CD15, especially on the early mouse embryo.

Images
The image shows staining of the cell membranes of P19 mouse embryonic carcinoma cells using SSEA1-specific antibody, ab16285.

Cell surface flow analysis of SSEA1 on D3 mouse ES cells using ab16285 at 1:100 dilution. Purple histogram represents negative control; green line represents anti-SSEA1 antibody (ab16285).

IHC image of SSEA1 staining in mouse normal brain formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol B. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab16285, 10µg/ml, for 15 mins at room temperature. A Goat anti-Mouse biotinylated secondary antibody was used to detect the primary, and visualized using an HRP conjugated ABC system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.
ICC/IF image of ab16285 stained mouse embryonic stem cells. The cells were 4% formalin fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab16285, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-mouse IgM (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue).

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