


## Product datasheet

# Anti-SSEA3 antibody [MC631] ab16286

★★★★★ [2 Abreviews](#) [38 References](#) [3 Images](#)

### Overview

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<b>Product name</b>	Anti-SSEA3 antibody [MC631]
<b>Description</b>	Rat monoclonal [MC631] to SSEA3
<b>Host species</b>	Rat
<b>Tested applications</b>	<b>Suitable for:</b> IHC-FoFr, Flow Cyt, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse 
<b>Immunogen</b>	Tissue, cells or virus. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	2102Ep Human Embryonic Carcinoma Cells
<b>General notes</b>	<p>The monoclonal antibody that defines SSEA-3 was derived by fusing cells of the murine myeloma cell line SP2/0 with the spleen cells of a Fisher rat immunized with 4-8-cell-stage zonapellucida-free embryos from randomly bred mice.</p> <p>This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact <a href="mailto:orders@abcam.com">orders@abcam.com</a>.</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.02% Sodium azide
<b>Purity</b>	Tissue culture supernatant
<b>Purification notes</b>	Tissue culture supernatant was cross flow concentrated.

<b>Clonality</b>	Monoclonal
<b>Clone number</b>	MC631
<b>Myeloma</b>	P3x63-Ag8.653
<b>Isotype</b>	IgM

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab16286 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

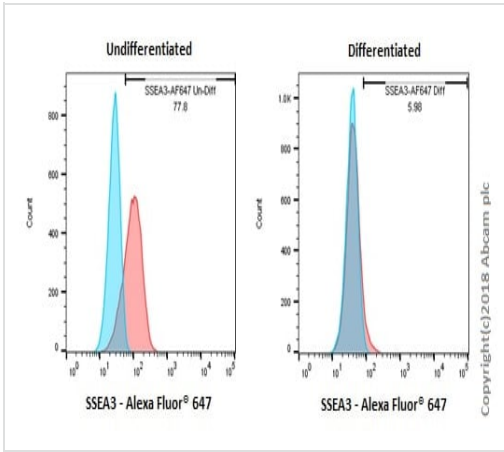
Application	Abreviews	Notes
IHC-FoFr		Use at an assay dependent concentration.
Flow Cyt	★★★★★ (1)	1/50. <b>ab35768</b> - Rat monoclonal IgM, is suitable for use as an isotype control with this antibody.
ICC/IF	★★★★☆ (1)	Use at an assay dependent concentration.

## Target

### Relevance

SSEA3 is a globoseries carbohydrate antigen present on both cell surface glycolipids and glycopeptides. It was described and named as part of a series of embryonic antigens, defined by monoclonal antibodies isolated in the lab of Prof. Davor Solter (Shevinsky L. H. et al., 1982, Cell 30:697 and Kannagi R. et al., 1983, J. Biol. Chem. 258:8934). SSEA3 is found on the surface of mouse oocytes, becoming restricted to the intracellular mass of the early blastocyst and then to the primitive endoderm. It is present on the surface of human teratocarcinoma cells (EC), embryonic germ cells (EG) and embryonic stem cells (ES) but not mouse undifferentiated mouse cells of these types. SSEA3 expression decreases as human EC, ES and EG cells differentiate but increases on differentiation of mouse EC, ES and EG cells. It is also found on the surface of mouse erythrocytes.

## Images

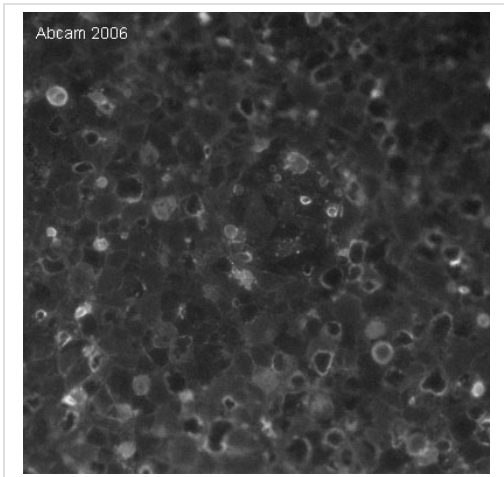


Flow Cytometry - Anti-SSEA3 antibody [MC631]

(ab16286)

This image is courtesy of Prof Chris Denning's lab, University of Nottingham

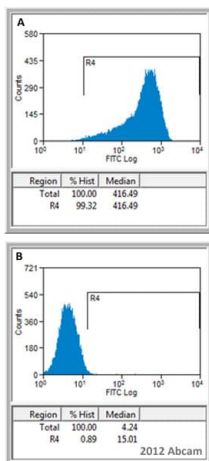
Human induced pluripotent stem cells (iPSCs) stained with ab16286 (red fill). In brief, iPSCs were fixed in 4% formaldehyde (methanol-free) for 15 min at 25°C. Cells were then incubated with the antibody (ab16286, 1/50 dilution) for 30 min at 4°C. The secondary antibody used was Alexa Fluor® 647 goat anti-rat IgG at 1/2000 dilution for 30 min at 4°C. iPSCs differentiated for 28 days toward a cardiomyocyte lineage (blue fill) were used as a negative control. Acquisition of >30,000 total events were collected using a 100mW solid state diode laser (640nm) and 670/30 bandpass filter.



The image shows cell membrane staining of 2102Ep human embryonic carcinoma cells using SSEA3 specific antibody ab16286.

Immunocytochemistry/ Immunofluorescence - Anti-SSEA3 antibody [MC631] (ab16286)

This image is courtesy of the laboratory of Peter Andrews.



Anti-SSEA3 antibody, ab16286 can be used as a marker of Embryonic Carcinoma cells in Flow Cytometry/FACS. The top histogram (A) shows undifferentiated NTERA2 cells (i.e. without retinoic acid) recognised by ab16286. However, upon differentiation (by the addition of retinoic acid  $10^{-5}$ M for 7 days), the antibody lost the ability to recognise these cells as shown in the bottom histogram (B).

Flow Cytometry - Anti-SSEA3 antibody [MC631]  
(ab16286)

This image is from an anonymous collaborator.

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