abcam

ab16285

Anti-SSEA1 antibody [MC-480]

20ul selling size

Key facts

Isotype	IgM
Host species	Mouse
Storage buffer	Preservative: 0.02% Sodium azide Constituents: 99% Tissue culture supernatant
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	MC-480
Purity	Tissue culture supernatant
Specificity	We guarantee IHC-P in Human only
Light chain type	kappa
Purification notes	Tissue culture supernatant was cross flow concentrated.

Reactivity data

IHC-FoFr

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.

Notes	-

Predicted

Species	Mouse
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/200
Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

ICC

Tested

Species	Mouse
Dilution info	1/1000
Notes	Fixation with 100% MeOH (5 min) or 4% PFA (10 min).

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt

Tested

Species	Mouse
Dilution info	-
Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information CD15

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Want a custom formulation?
This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Stage-specific embryonic antigen-1 (SSEA-1) also known as CD15 is a carbohydrate antigen often attached to glycoproteins or glycolipids. It has a molecular mass of approximately 480 Da. SSEA-1 is prominently expressed on the surface of murine embryonal carcinoma cells granulocytes and neural stem cells. It plays a role in cellular processes such as adhesion where it influences cell-to-cell and cell-to-extracellular matrix interactions.
Biological function summary	SSEA-1 participates in the regulation of cell differentiation and migration. This carbohydrate antigen is particularly critical in developmental stages where it impacts cellular behaviors that are important for embryogenesis. It functions as an adhesion molecule playing a role in forming complexes with cell surface lectins. These complexes can influence how cells communicate and adhere to one another therefore affecting various aspects of cellular dynamics.
Pathways	SSEA-1 is integral to the leukocyte extravasation signaling pathway which is significant for the immune system's operation. It interacts with proteins involved in the regulation of inflammation and immune response such as selectins. The antigen aids the tethering and rolling of leukocytes on endothelial surfaces a precursor step for their transmigration into tissues. SSEA-1's interaction with selectins is important in this process driving important cellular functions that enable immune surveillance and responses.
Associated diseases and disorders	SSEA-1 is associated with certain cancers such as leukemia and neurological disorders. In leukemia SSEA-1 can act as a marker for cancer stem cells influencing tumor progression and resistance to chemotherapy. In the context of neurological disorders its altered expression is connected with the pathology of Alzheimer's disease where neural stem cell behavior may be affected. Other proteins like amyloid precursors potentially interact with SSEA-1 in Alzheimer's contributing to the disease's complexity.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

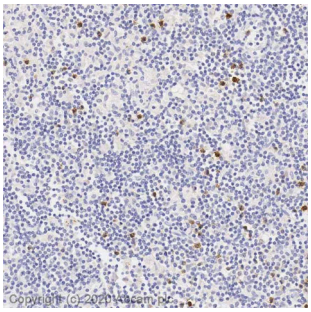
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

4 product images

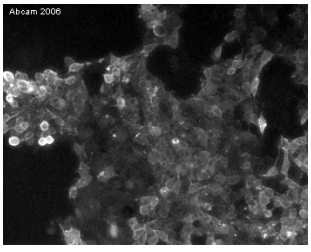


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SSEA1 antibody [MC-480] (ab16285)

SSEA1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-SSEA1 antibody

IHC image of SSEA1 staining in Human Hodgkin's Lymphoma formalin fixed paraffin embedded tissue section*. The section was pre-treated using pressure cooker heat mediated antigen retrieval with sodium citrate buffer (pH6.0). The section was incubated with ab16285, 1/200 dilution, overnight at 4°C. A Goat anti-Mouse (IgM) HRP conjugated secondary antibody (ab97230 at 1/2000) was used to detect the primary and visualized using DAB as the chromogen. The section was 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.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre

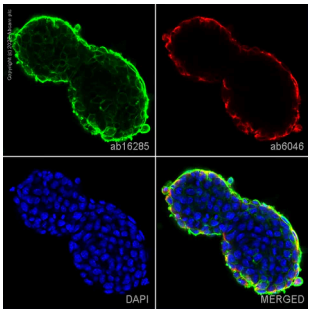


This image is courtesy of the laboratory of Peter Andrews.

Immunocytochemistry - Anti-SSEA1 antibody [MC-480] (ab16285)

SSEA1 Immunocytochemistry staining using mouse Anti-SSEA1 antibody

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



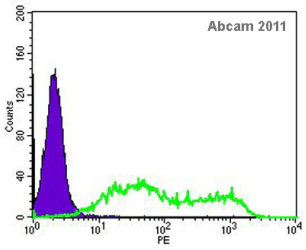
Immunocytochemistry - Anti-SSEA1 antibody [MC-480] (ab16285)

SSEA1 Immunocytochemistry staining using mouse Anti-SSEA1 antibody

ab16285 staining SSEA1 in mES cells. The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.1% PBS-Tween for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab16285 at a 1/1000 dilution and ab6046, Rabbit polyclonal to beta Tubulin - Loading Control.

Cells were then incubated with ab150121, Goat polyclonal Secondary Antibody to Mouse IgM - mu chain (Alexa Fluor® 488) at 1/1000 dilution (shown in green) and ab150080, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 594) at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue).
Also suitable in cells fixed with 100% methanol (5 min).

Image was acquired with a confocal microscope (Leica-Microsystems TCS SP8) and a single confocal section is shown.



This image is taken from an anonymous customer review.

Flow Cytometry - Anti-SSEA1 antibody [MC-480] (ab16285)

SSEA1 Flow Cytometry staining using mouse Anti-SSEA1 antibody

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).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.