abcam

ab227664

Anti-MAGEA1 antibody [SP188]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.6 Preservative: 0.1% Sodium azide Constituents: PBS, 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	SP188
Purification technique	Affinity purification Protein A/G
Concentration	0.132 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from TCS by protein A/G.

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/8000
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/400
Notes	-

WB

Tested

Species	Human
Dilution info	1/400
Notes	-

Target data

See full target information MAGEA1

Function	May be involved in transcriptional regulation through interaction with SNW1 and recruiting histone deactelyase HDAC1. May inhibit notch intracellular domain (NICD) transactivation. May play a role in embryonal development and tumor transformation or aspects of tumor progression. Antigen recognized on a melanoma by autologous cytolytic T-lymphocytes.

Storage

Shipped at conditions	Conditional Ambient
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

Supplementary info

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

Activity summary	MAGEA1 also known as MAGE-1 is a member of the MAGE (Melanoma Antigen Gene) family of proteins. It has a molecular weight of approximately 39 kDa. MAGEA1 is expressed mainly in male germline tissues and in various cancer cells but not in adult somatic tissues. The protein functions mechanically by interacting with specific molecules in cells although detailed mechanisms are still under investigation.
Biological function summary	The protein encoded by MAGEA1 participates in cellular processes linked to cancer development and progression. It does not function as part of a larger complex but interacts directly with certain cellular pathways. In particular the expression of MAGEA1 is often associated with transformation events and uncontrolled cell proliferation underlining its role in oncogenesis.
Pathways	MAGEA1 plays roles in oncogenic and apoptotic pathways. It can influence the p53 signaling pathway important for cell cycle regulation and apoptosis. The interaction with other proteins such as p53 and potentially with the NF-kB pathway highlights how MAGEA1 might modulate the apoptotic response. MAGEA1 impacts cellular mechanisms by affecting apoptosis and proliferation through these pathways.
Associated diseases and disorders	MAGEA1 is strongly related to cancer particularly melanoma and some other tumor types. Its expression in cancers makes MAGEA1 a target for cancer immunotherapy. MAGEA1 associates with proteins like p53 in certain cancers and can alter the tumor suppressive characteristics. Its role in these diseases presents MAGEA1 as a biomarker for cancer diagnosis and treatment adding clinical significance to its study.

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

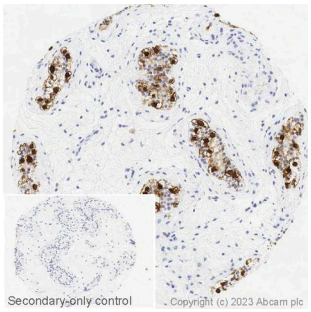
We do not recommend this combination. It is not covered by our product promise.

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.

7 product images



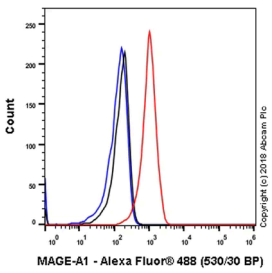
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MAGEA1 antibody [SP188] (ab227664)

MAGEA1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human normal testis using rabbit Anti-MAGEA1 antibody

IHC image of Magea1 staining in a section of formalin-fixed paraffin-embedded human normal testis☒ performed on a Leica Biosystems BOND® RX instrument using the standard protocol. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20mins. The section was then incubated with ab227664, 0.05ug/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody.

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

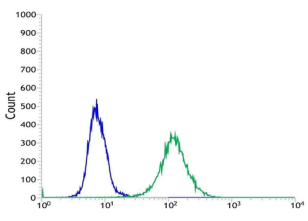
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Flow Cytometry (Intracellular) - Anti-MAGEA1 antibody [SP188] (ab227664)

MAGEA1 Flow Cytometry (Intracellular) staining using rabbit Anti-MAGEA1 antibody

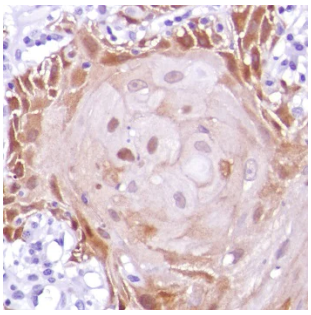
Flow Cytometry analysis of SK-OV-3 (Human ovarian cancer epithelial cell) cells labeling MAGEA1 with purifiedab227664 at 1:20 dilution (7.25 µg/ml) (Red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1:2000 dilution. Isotype control - Rabbit monoclonal IgG (ab172730) / Black. Unlabeled control - Unlabelled cells / blue.



Flow Cytometry (Intracellular) - Anti-MAGEA1 antibody [SP188] (ab227664)

MAGEA1 Flow Cytometry (Intracellular) staining using rabbit Anti-MAGEA1 antibody

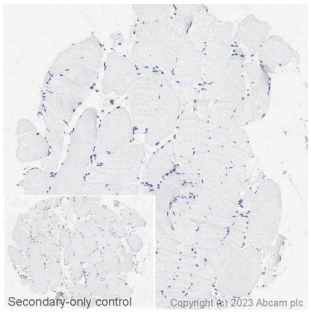
Flow cytometric analysis of A431 (human epidermoid carcinoma cell line) cell line labeling MAGEA1 with ab227664 at 1/400 dilution (green) compared with a Rabbit IgG negative control (blue).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MAGEA1 antibody [SP188] (ab227664)

MAGEA1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-MAGEA1 antibody

Formalin-fixed, paraffin-embedded human skin squamous cell carcinoma tissue stained for MAGEA1 using ab227664 at 1/100 dilution in immunohistochemical analysis.



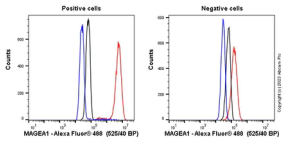
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MAGEA1 antibody [SP188] (ab227664)

MAGEA1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human normal skeletal muscle using rabbit Anti-MAGEA1 antibody

Negative control image: IHC image of MAGEA1 staining in a section of formalin-fixed paraffin-embedded human normal skeletal muscle☒ performed on a Leica Biosystems BOND® RX instrument using the standard protocol. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20mins. The section was then incubated with ab227664, 0.05ug/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody.

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Flow Cytometry (Intracellular) - Anti-MAGEA1 antibody [SP188] (ab227664)

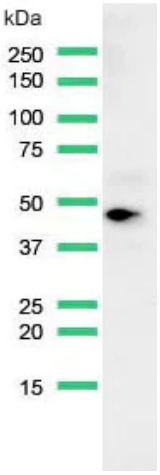
MAGEA1 Flow Cytometry (Intracellular) staining using rabbit Anti-MAGEA1 antibody

Flow cytometry overlay histogram showing left A-431 positive cells and right negative MCF7 stained with ab227664 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilised with 0.1% PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS containing 10% normal goat serum to block non-specific protein-protein interaction followed by the antibody (ab227664) (1x 106 in 100µl at 1.0µg/ml (1/2100)) for 30min at 22°C.

The secondary antibody Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed was incubated at 1/4000 for 30min at 22°C

Isotype control antibody (black line) was Recombinant Rabbit IgG, monoclonal [EPR25A] - Isotype Control used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

Acquisition of >5000 events were collected using a 50 mW Blue laser (488nm) and 525/40 bandpass filter.



Western blot - Anti-MAGEA1 antibody [SP188] (ab227664)

All lanes:
Western blot - Anti-MAGEA1 antibody [SP188] (ab227664) at 1/400 dilution

All lanes:
HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate

Predicted band size: 34 kDa

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