

MAGE-A1 (MA454): sc-20033

BACKGROUND

The melanoma-associated antigen (MAGE) family consists of a number of antigens recognized by cytotoxic T lymphocytes. The MAGE genes were initially isolated from different kinds of tumors, and based on their virtually exclusive tumor-specific expression in adult tissues, they have been used as targets for cancer immunotherapy. MAGE genes encode for tumor-rejection antigens and are expressed in tumors of different histologic types, but not in normal tissues, with the exception of testis and placenta. Although a large number of MAGE genes have now been identified and extensively studied in tumors of various origin, their function in normal cells remains unknown.

CHROMOSOMAL LOCATION

Genetic locus: MAGEA1 (human) mapping to Xq28; Magea1 (mouse) mapping to X F3.

SOURCE

MAGE-A1 (MA454) is a mouse monoclonal antibody raised against partially purified, full length recombinant MAGE-A1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MAGE-A1 (MA454) is available conjugated to agarose (sc-20033 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-20033 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-20033 PE), fluorescein (sc-20033 FITC), Alexa Fluor® 488 (sc-20033 AF488), Alexa Fluor® 546 (sc-20033 AF546), Alexa Fluor® 594 (sc-20033 AF594) or Alexa Fluor® 647 (sc-20033 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-20033 AF680) or Alexa Fluor® 790 (sc-20033 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

MAGE-A1 (MA454) is recommended for detection of MAGE-A1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MAGE-A1 siRNA (h): sc-37313, MAGE-A1 shRNA Plasmid (h): sc-37313-SH, MAGE-A1 shRNA (h) Lentiviral Particles: sc-37313-V.

Molecular Weight of MAGE-A1: 46 kDa.

Positive Controls: U266 whole cell lysate: sc-364800, SK-MEL-28 cell lysate: sc-2236 or A-375 cell lysate: sc-3811.

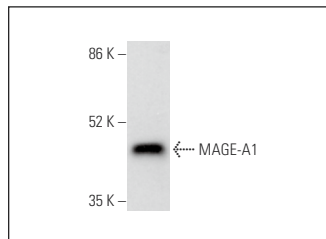
RESEARCH USE

For research use only, not for use in diagnostic procedures.

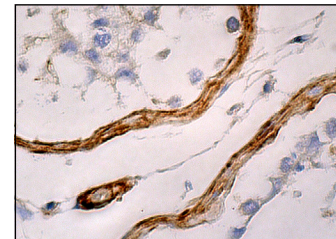
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



MAGE-A1 (MA454): sc-20033. Western blot analysis of MAGE-A1 expression in U266 whole cell lysate.



MAGE-A1 (MA454): sc-20033. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic staining of peritubular myoid cells.

SELECT PRODUCT CITATIONS

1. Qian, X., et al. 2008. Pharmacologically enhanced expression of GPNMB increases the sensitivity of melanoma cells to the CR011-vcMMAE antibody-drug conjugate. *Mol. Oncol.* 2: 81-93.
2. Coral, S., et al. 2013. Immunomodulatory activity of SGI-110, a 5-aza-2'-deoxycytidine-containing demethylating dinucleotide. *Cancer Immunol. Immunother.* 62: 605-614.
3. Sideras, K., et al. 2015. Tumour antigen expression in hepatocellular carcinoma in a low-endemic western area. *Br. J. Cancer* 112: 1911-1920.
4. Hu, Y., et al. 2017. Splicing factor hnRNPA2B1 contributes to tumorigenic potential of breast cancer cells through Stat3 and ERK1/2 signaling pathway. *Tumour Biol.* 39: 1010428317694318.
5. Chari, A., et al. 2017. A phase 2 study of panobinostat with lenalidomide and weekly dexamethasone in myeloma. *Blood Adv.* 1: 1575-1583.
6. Iura, K., et al. 2018. Cancer-testis antigens are predominantly expressed in uterine leiomyosarcoma compared with non-uterine leiomyosarcoma. *Oncol. Lett.* 15: 441-446.
7. Gavvovidis, I., et al. 2018. Targeting Merkel cell carcinoma by engineered T cells specific to T-antigens of Merkel cell polyomavirus. *Clin. Cancer Res.* 24: 3644-3655.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.