

# 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 IgG<sub>1</sub> 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.

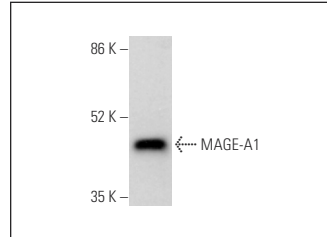
## RESEARCH USE

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

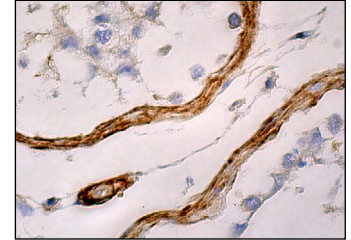
## STORAGE

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

- 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.
- Coral, S., et al. 2013. Immunomodulatory activity of SGI-110, a 5-aza-2'-deoxycytidine-containing demethylating dinucleotide. *Cancer Immunol. Immunother.* 62: 605-614.
- Sideras, K., et al. 2015. Tumour antigen expression in hepatocellular carcinoma in a low-endemic western area. *Br. J. Cancer* 112: 1911-1920.
- Hu, Y., et al. 2017. Splicing factor hnRNP2B1 contributes to tumorigenic potential of breast cancer cells through Stat3 and ERK1/2 signaling pathway. *Tumour Biol.* 39: 1010428317694318.
- Chari, A., et al. 2017. A phase 2 study of panobinostat with lenalidomide and weekly dexamethasone in myeloma. *Blood Adv.* 1: 1575-1583.
- Iura, K., et al. 2018. Cancer-testis antigens are predominantly expressed in uterine leiomyosarcoma compared with non-uterine leiomyosarcoma. *Oncol. Lett.* 15: 441-446.
- 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](http://www.scbt.com) for detailed protocols and support products.