

# MAGE-A (A-1): sc-515687

## 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.

## REFERENCES

- Okami, J., et al. 2000. Genetic detection for micrometastasis in lymph node of biliary tract carcinoma. *Clin. Cancer Res.* 6: 2326-2332.
- Granelli, P., et al. 2000. Melanoma antigen genes 1 and 2 are differentially expressed in human gastric and cardiac carcinomas. *Scand. J. Gastroenterol.* 35: 528-533.
- Klein, C., et al. 2000. Comparative analysis of genetically modified dendritic cells and tumor cells as therapeutic cancer vaccines. *J. Exp. Med.* 191: 1699-1708.
- Busam, K.J., et al. 2000. Immunoreactivity with the anti-MAGE antibody 57B in malignant melanoma: frequency of expression and correlation with prognostic parameters. *Mod. Pathol.* 13: 459-465.
- Kobayashi, Y., et al. 2000. Expression of MAGE, GAGE and BAGE genes in human liver diseases: utility as molecular markers for hepatocellular carcinoma. *J. Hepatol.* 32: 612-617.
- Luiten, R., et al. 2000. A MAGE-A1 peptide is recognized on HLA-B7 human tumors by cytolytic T lymphocytes. *Tissue Antigens* 55: 149-152.

## CHROMOSOMAL LOCATION

Genetic locus: MAGEA1/MAGEA2/MAGEA2B/MAGEA3/MAGEA4/MAGEA6/MAGEA8/MAGEA9/MAGEA12 (human) mapping to Xq28.

## SOURCE

MAGE-A (A-1) is a mouse monoclonal antibody raised against amino acids 243-287 mapping near the C-terminus of MAGE-A12 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-A (A-1) is available conjugated to agarose (sc-515687 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515687 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515687 PE), fluorescein (sc-515687 FITC), Alexa Fluor<sup>®</sup> 488 (sc-515687 AF488), Alexa Fluor<sup>®</sup> 546 (sc-515687 AF546), Alexa Fluor<sup>®</sup> 594 (sc-515687 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-515687 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-515687 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-515687 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

MAGE-A (A-1) is recommended for detection of MAGE-A1, MAGE-A2, MAGE-A2B, MAGE-A3, MAGE-A4, MAGE-A6, MAGE-A8, MAGE-A9 and MAGE-A12 of human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

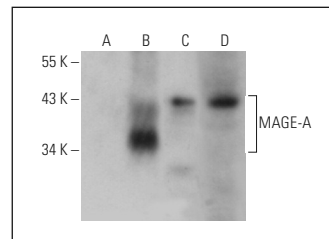
Molecular Weight of MAGE-A: 35 kDa.

Positive Controls: MAGE-A2 (h5): 293T Lysate: sc-369093, A-375 cell lysate: sc-3811 or SK-MEL-24 whole cell lysate: sc-364259.

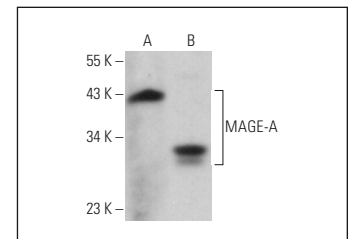
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



MAGE-A (A-1): sc-515687. Western blot analysis of MAGE-A expression in non-transfected 293T: sc-117752 (A), human MAGE-A2 transfected 293T: sc-369093 (B), A-375 (C) and SK-MEL-24 (D) whole cell lysates.



MAGE-A (A-1): sc-515687. Western blot analysis of MAGE-A expression in SK-MEL-24 (A) and SW-13 (B) whole cell lysates.

## STORAGE

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

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.