

MAGE-A4 (C-13): sc-28484

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. Malignant neoplasms have been shown to express MAGE genes, notably MAGE-A4. Expression correlates significantly with poorly differentiated tumors of cervical lineage, and while MAGE-A4 localizes to the nucleus in well-differentiated tumors, it occupies both the nucleus and cytoplasm of poorly differentiated cancer cells. Expression of MAGE-4 is not limited to cervical carcinoma; more than 50 percent of carcinomas of the esophagus, head and neck, lung, and bladder also express MAGE-A4, where it prompts cytolytic T lymphocyte targeting, suggesting it may serve as a target for antitumoral vaccination.

REFERENCES

1. Aubry, F., et al. 2001. MAGE-A4, a germ cell specific marker, is expressed differentially in testicular tumors. *Cancer* 92: 2778-2785.
2. Zhang Y, et al. 2002. A MAGE-A4 peptide presented by HLA-B37 is recognized on human tumors by cytolytic T lymphocytes. *Tissue Antigens* 60: 365-371.
3. Yakirevich, E., et al. 2003. Morphometrical quantification of spermatogonial germ cells with the 57B anti-MAGE-A4 antibody in the evaluation of testicular biopsies for zoospermia. *Appl. Immunohistochem. Mol. Morphol.* 11: 37-44.
4. Sarcevic, B., et al. 2003. Expression of cancer/testis tumor associated antigens in cervical squamous cell carcinoma. *Oncology* 64: 443-449.
5. Sakurai, T., et al. 2004. A cleaved form of MAGE-A4 binds to Miz-1 and induces apoptosis in human cells. *J. Biol. Chem.* 279: 15505-15514.

CHROMOSOMAL LOCATION

Genetic locus: MAGEA4 (human) mapping to Xq28.

SOURCE

MAGE-A4 (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of MAGE-A4 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-28484 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

MAGE-A4 (C-13) is recommended for detection of MAGE-A4 of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MAGE-A4 siRNA (h): sc-45955, MAGE-A4 shRNA Plasmid (h): sc-45955-SH and MAGE-A4 shRNA (h) Lentiviral Particles: sc-45955-V.

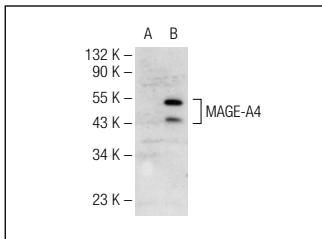
Molecular Weight of MAGE-A4: 35 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, MAGE-A4 (h): 293T Lysate: sc-176182 or A-375 cell lysate: sc-3811.

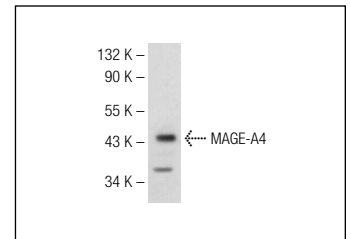
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



MAGE-A4 (C-13): sc-28484. Western blot analysis of MAGE-A4 expression in non-transfected: sc-117752 (A) and human MAGE-A4 transfected: sc-176182 (B) 293T whole cell lysates.



MAGE-A4 (C-13): sc-28484. Western blot analysis of MAGE-A4 expression in A-375 whole cell lysate.

STORAGE

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


 MONOS
Satisfaction
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Try **MAGE-A (6C1): sc-20034**, our highly recommended monoclonal alternative to MAGE-A4 (C-13). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **MAGE-A (6C1): sc-20034**.