

MAGE-A4 (16-Y): sc-101223

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-A4 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

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CHROMOSOMAL LOCATION

Genetic locus: MAGEA4 (human) mapping to Xq28; Magea4 (mouse) mapping to X A7.3.

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.

SOURCE

MAGE-A4 (16-Y) is a mouse monoclonal antibody raised against recombinant MAGE-A4 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2b} in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

MAGE-A4 (16-Y) is recommended for detection of MAGE-A4 of mouse 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) 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

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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 goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

PROTOCOLS

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