

MAGE-A11 (F-14): sc-168527

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 and in normal testis and placenta. MAGE-A11 (melanoma antigen family A, 11), also known as MAGE11, MAGE-11, MAGEA-11 or CT1.11 (cancer/testis antigen 1.11), is a 429 amino acid protein that localizes to both the nucleus and the cytoplasm and contains one MAGE domain. Expressed in a variety of tumors, including melanoma, breast cancer and lung cancer, MAGE-A11 functions as an androgen receptor (AR) co-regulator that modulates the interdomain of AR, thereby increasing its activity. Through its regulation of AR, MAGE-A11 is thought to play an important role in embryonic development and tumor progression/transformation. Two isoforms of MAGE-A11 exist due to alternative splicing events.

REFERENCES

- De Plaen, E., Arden, K., Traversari, C., Gaforio, J.J., Szikora, J.P., De Smet, C., Brasseur, F., van der Bruggen, P., Lethé, B. and Lurquin, C. 1994. Structure, chromosomal localization, and expression of 12 genes of the MAGE family. *Immunogenetics* 40: 360-369.
- Rogner, U.C., Wilke, K., Steck, E., Korn, B. and Poustka, A. 1995. The melanoma antigen gene (MAGE) family is clustered in the chromosomal band Xq28. *Genomics* 29: 725-731.
- Jurk, M., Kremmer, E., Schwarz, U., Förster, R. and Winnacker, E.L. 1998. MAGE-11 protein is highly conserved in higher organisms and located predominantly in the nucleus. *Int. J. Cancer* 75: 762-766.
- Irvine, R.A. and Coetzee, G.A. 1999. Additional upstream coding sequences of MAGE-11. *Immunogenetics* 49: 585.
- Serrano, A., Lethé, B., Delroisse, J.M., Lurquin, C., De Plaen, E., Brasseur, F., Rimoldi, D. and Boon, T. 1999. Quantitative evaluation of the expression of MAGE genes in tumors by limiting dilution of cDNA libraries. *Int. J. Cancer* 83: 664-669.
- Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 300344: World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Bai, S., He, B. and Wilson, E.M. 2005. Melanoma antigen gene protein MAGE-11 regulates androgen receptor function by modulating the inter-domain interaction. *Mol. Cell. Biol.* 25: 1238-1257.
- Askew, E.B., Gampe, R.T., Stanley, T.B., Faggart, J.L. and Wilson, E.M. 2007. Modulation of androgen receptor activation function 2 by testosterone and dihydrotestosterone. *J. Biol. Chem.* 282: 25801-25816.
- Bai, S. and Wilson, E.M. 2008. Epidermal-growth-factor-dependent phosphorylation and ubiquitinylation of MAGE-11 regulates its interaction with the androgen receptor. *Mol. Cell. Biol.* 28: 1947-1963.

CHROMOSOMAL LOCATION

Genetic locus: MAGEA11 (human) mapping to Xq28.

SOURCE

MAGE-A11 (F-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of MAGE-A11 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-168527 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MAGE-A11 (F-14) is recommended for detection of MAGE-A11 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other MAGE-A family members.

Suitable for use as control antibody for MAGE-A11 siRNA (h): sc-108016, MAGE-A11 shRNA Plasmid (h): sc-108016-SH and MAGE-A11 shRNA (h) Lentiviral Particles: sc-108016-V.

Molecular Weight of full length MAGE-A11: 70 kDa.

Molecular Weight of truncated MAGE-A11: 40 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

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) 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.

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 or our catalog for detailed protocols and support products.