

MAGE-D2 (C-20): sc-68606

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 that are expressed in tumors of different histologic types and in normal testis and placenta. MAGE-D2 (melanoma-associated antigen D2), also known as BCG1 (breast cancer-associated gene 1), 11B6, HCA10 or JCL-1, is a 606 amino acid protein that contains one MAGE domain. Expressed throughout the body, MAGE-D2 is thought to function as a negative regulator of p53 (a potent tumor suppressor), possibly contributing to tumor formation and metastasis. Multiple isoforms of MAGE-D2 exist due to alternative splicing events.

REFERENCES

- Lucas, S., Brasseur, F. and Boon, T. 1999. A new MAGE gene with ubiquitous expression does not code for known MAGE antigens recognized by T cells. *Cancer Res.* 59: 4100-4103.
- Langnaese, K., Kloos, D.U., Wehnert, M., Seidel, B. and Wieacker, P. 2001. Expression pattern and further characterization of human MAGE-D2 and identification of rodent orthologues. *Cytogenet. Cell Genet.* 94: 233-240.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 300470. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Harper, R., Xu, C., Di, P., Chen, Y., Privalsky, M. and Wu, R. 2004. Identification of a novel MAGE-D2 antisense RNA transcript in human tissues. *Biochem. Biophys. Res. Commun.* 324: 199-204.
- Bertrand, M., Huijbers, I., Chomez, P. and De Backer, O. 2004. Comparative expression analysis of the MAGED genes during embryogenesis and brain development. *Dev. Dyn.* 230: 325-334.
- Kidd, M., Modlin, I.M., Mane, S.M., Camp, R.L., Eick, G. and Latich, I. 2006. The role of genetic markers—NAP1L1, MAGE-D2, and MTA1—in defining small-intestinal carcinoid neoplasia. *Ann. Surg. Oncol.* 13: 253-262.
- Papageorgio, C., Brachmann, R., Zeng, J., Culverhouse, R., Zhang, W. and McLeod, H. 2007. MAGE-D2: a novel p53-dissociator. *Int. J. Oncol.* 31: 1205-1211.

CHROMOSOMAL LOCATION

Genetic locus: MAGED2 (human) mapping to Xp11.21; Maged2 (mouse) mapping to X F3.

SOURCE

MAGE-D2 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MAGE-D2 of human origin.

STORAGE

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

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-68606 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MAGE-D2 (C-20) is recommended for detection of melanoma-associated antigen D2 of mouse, rat and 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).

MAGE-D2 (C-20) is also recommended for detection of melanoma-associated antigen D2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MAGE-D2 siRNA (h): sc-62581, MAGE-D2 siRNA (m): sc-62582, MAGE-D2 shRNA Plasmid (h): sc-62581-SH, MAGE-D2 shRNA Plasmid (m): sc-62582-SH, MAGE-D2 shRNA (h) Lentiviral Particles: sc-62581-V and MAGE-D2 shRNA (m) Lentiviral Particles: sc-62582-V.

Molecular Weight of MAGE-D2: 65 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or MCF7 whole cell lysate: sc-2206.

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.

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.