SANTA CRUZ BIOTECHNOLOGY, INC.

MAGE-G1 (N-15): sc-160508

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BIOTECHNOLOGY

The Power to Question

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-G1 (melanoma-associated antigen G1), also known as HCA4 (hepatocellular carcinoma-associated protein 4) or NDNL2 (necdin-like protein 2), is a 304 amino acid nuclear and cytoplasmic protein that is ubiquitously expressed and contains one MAGE domain. Functioning as a growth suppressor, MAGE-G1 influences the entry of cells into cell cycle arrest. The gene encoding MAGE-G1 maps to human chromosome 15q13.1.

REFERENCES

1. Chibuk, T.K., et al. 2001. A necdin/MAGE-like gene in the chromosome 15 autism susceptibility region: expression, imprinting, and mapping of the human and mouse orthologues. BMC Genet. 2: 22.

2. Chomez, P., et al. 2001. An overview of the MAGE gene family with the identification of all human members of the family. Cancer Res. 61: 5544-5551.

3. Kirkin, A.F., et al. 2002. Cancer/testis antigens: structural and immunobiological properties. Cancer Invest. 20: 222-236.

4. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 608243. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

5. Marcar, L., et al. 2010. Mage-A cancer/testis antigens inhibit p53 function by blocking its interaction with chromatin. Cancer Res. 70: 10362-10370.

6. Burkard, T.R., et al. 2011. Initial characterization of the human central proteome. BMC Syst. Biol. 5: 17.

7. Sang, M., et al. 2011. Melanoma-associated antigen genes-an update. Cancer Lett. 302: 85-90.

8. Feng, Y., et al. 2011. When MAGE meets RING: insights into biological functions of MAGE proteins. Protein Cell 2: 7-12.

CHROMOSOMAL LOCATION

Genetic locus: NDNL2 (human) mapping to 15q13.1.

SOURCE

MAGE-G1 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of MAGE-G1 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-160508 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MAGE-G1 (N-15) is recommended for detection of MAGE-G1 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 MAGE-G2.

Suitable for use as control antibody for MAGE-G1 siRNA (h): sc-90118, MAGE-G1 shRNA Plasmid (h): sc-90118-SH and MAGE-G1 shRNA (h) Lentiviral Particles: sc-90118-V.

Molecular Weight of MAGE-G1: 34 kDa.

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.