SANTA CRUZ BIOTECHNOLOGY, INC.

MAGE-C3 (G-13): sc-168531



Day Assessed Consider

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-C3 (melanoma-associated antigen C3), also known as CT7.2 (cancer/testis antigen 7.2) or HCA2 (hepatocellular carcinoma-associated antigen 2), is a 643 amino acid protein that is expressed in testis and contains 2 MAGE domains. The gene encoding MAGE-C3 maps to human chromosome X, which consists of about 153 million base pairs and nearly 1,000 genes. Color blindness, hemophilia and Duchenne muscular dystrophy are well known X chromosome-linked conditions which affect males more frequently, as males carry a single X chromosome.

REFERENCES

- Lucas, S., et al. 2000. MAGE-B5, MAGE-B6, MAGE-C2, and MAGE-C3: four new members of the MAGE family with tumor-specific expression. Int. J. Cancer 87: 55-60.
- 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. Deeb, S.S. 2005. The molecular basis of variation in human color vision. Clin. Genet. 67: 369-377.
- Ross, M.T., et al. 2005. The DNA sequence of the human X chromosome. Nature 434: 325-337.
- 6. Online Mendelian Inheritance in Man, OMIM™. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 300469. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 7. Han, G., et al. 2008. Large-scale phosphoproteome analysis of human liver tissue by enrichment and fractionation of phosphopeptides with strong anion exchange chromatography. Proteomics 8: 1346-1361.
- Helderman-van den Enden, A.T., et al. 2009. Recurrence risk due to germ line mosaicism: Duchenne and Becker muscular dystrophy. Clin. Genet. 75: 465-472.
- Kasper, C.K., et al. 2009. Mosaicism and haemophilia. Haemophilia. E-Published.

CHROMOSOMAL LOCATION

Genetic locus: MAGEC3 (human) mapping to Xg27.2.

SOURCE

MAGE-C3 (G-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of MAGE-C3 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-168531 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MAGE-C3 (G-13) is recommended for detection of MAGE-C3 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-C1 or MAGE-C2.

Suitable for use as control antibody for MAGE-C3 siRNA (h): sc-91017, MAGE-C3 shRNA Plasmid (h): sc-91017-SH and MAGE-C3 shRNA (h) Lentiviral Particles: sc-91017-V.

Molecular Weight of MAGE-C3: 72 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) 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.

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