SANTA CRUZ BIOTECHNOLOGY, INC.

MAGE-A4 (h): 293T Lysate: sc-176182

SANTA CRUZ 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 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-4 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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2. Zhang, Y., et al. 2002. A MAGE-A4 peptide presented by HLA-B37 is recognized on human tumors by cytolytic T lymphocytes. Tissue Antigens 60: 365-371.
3. Yakirevich, E., et al. 2003. Morphometrical quantification of spermatogonial germ cells with the 57B anti-MAGE-A4 antibody in the evaluation of testicular biopsies for zoospermia. Appl. Immunohistochem. Mol. Morphol. 11: 37-44.
4. Sarcevic, B., et al. 2003. Expression of cancer/testis tumor associated antigens in cervical squamous cell carcinoma. Oncology 64: 443-449.
5. Rajpert-De Meyts, E., et al. 2003. The immunohistochemical expression pattern of Chk2, p53, p19INK4d, MAGE-A4 and other selected antigens provides new evidence for the premeiotic origin of spermatocytic seminoma. Histopathology 42: 217-226.
6. Nagao, T., et al. 2003. MAGE-A4 interacts with the liver oncoprotein gankyrin and suppresses its tumorigenic activity. J. Biol. Chem. 278: 10668-10674.
7. Sakurai, T., et al. 2004. A cleaved form of MAGE-A4 binds to Miz-1 and induces apoptosis in human cells. J. Biol. Chem. 279: 15505-15514.

CHROMOSOMAL LOCATION

Genetic locus: MAGEA4 (human) mapping to Xq28.

PRODUCT

MAGE-A4 (h): 293T Lysate represents a lysate of human MAGE-A4 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

MAGE-A4 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive MAGE-A4 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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