# MAGE-A12 (h3): 293T Lysate: sc-110824



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 and in normal testis and placenta. MAGE-A12 (melanoma-associated antigen 12), also known as MAGE12 or CT1.12 (cancer/testis antigen 1.12), is a 314 amino acid protein that contains one MAGE domain and is thought to play a role in tumor progression. Like other members of the MAGE family, MAGE-A12 is expressed in head and neck squamous cell carcinoma, melanoma, breast cancer and lung cancer, suggesting that MAGE-A12 plays an important role in carcinogenesis.

## **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.
- 2. 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.
- 3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 300177. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 4. Taylor, M., Bolton, L.M., Johnson, P., Elliott, T. and Murray, N. 2007. Breast cancer is a promising target for vaccination using cancer-testis antigens known to elicit immune responses. Breast Cancer Res. 9: R46.
- Wischnewski, F., Friese, O., Pantel, K. and Schwarzenbach, H. 2007. Methyl-CpG binding domain proteins and their involvement in the regulation of the MAGE-A1, MAGE-A2, MAGE-A3, and MAGE-A12 gene promoters. Mol. Cancer Res. 5: 749-759.
- Ries, J., Vairaktaris, E., Mollaoglu, N., Wiltfang, J., Neukam, F.W. and Nkenke, E. 2008. Expression of melanoma-associated antigens in oral squamous cell carcinoma. J. Oral Pathol. Med. 37: 88-93.
- Andrade, V.C., Vettore, A.L., Felix, R.S., Almeida, M.S., Carvalho, F., Oliveira, J.S., Chauffaille, M.L., Andriolo, A., Caballero, O.L., Zago, M.A. and Colleoni, G.W. 2008. Prognostic impact of cancer/testis antigen expression in advanced stage multiple myeloma patients. Cancer Immun. 8: 2.

#### **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.

# **CHROMOSOMAL LOCATION**

Genetic locus: MAGEA12 (human) mapping to Xq28.

#### **PRODUCT**

MAGE-A12 (h3): 293T Lysate represents a lysate of human MAGE-A12 transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

# **APPLICATIONS**

MAGE-A12 (h3): 293 Lysate is suitable as a Western Blotting positive control for human reactive MAGE-A12 antibodies. Recommended use: 10-20  $\mu$ l per lane.

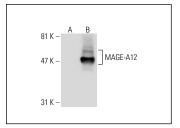
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-tranfected 293T cells.

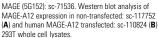
MAGE (5G152): sc-71536 is recommended as a positive control antibody for Western Blot analysis of enhanced human MAGE-A12 expression in MAGE-A12 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

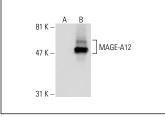
#### **RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG $\kappa$  BP-HRP: sc-516102 or m-lgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>TM</sup> Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA







MAGE (6A111): sc-71537. Western blot analysis of MAGE-A12 expression in non-transfected: sc-117752 (A) and human MAGE-A12 transfected: sc-110824 (B) 293T whole cell lysates.

## **RESEARCH USE**

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