# SANTA CRUZ BIOTECHNOLOGY, INC.

# MAGE-B5 (P-12): sc-240654



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-B5 (melanoma-associated antigen B5), also known as CT3.3 (cancer/testis antigen 3.3), is a 275 amino acid protein that contains one MAGE domain and is expressed in testis. The gene encoding MAGE-B5 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., De Plaen, E. and Boon, T. 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., De Backer, O., Bertrand, M., De Plaen, E., Boon, T. and Lucas, S. 2001. An overview of the MAGE gene family with the identification of all human members of the family. Cancer Res. 61: 5544-5551.
- Kirkin, A.F., Dzhandzhugazyan, K.N. and Zeuthen, J. 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.
- Helderman-van den Enden, A.T., de Jong, R., den Dunnen, J.T., Houwing-Duistermaat, J.J., Kneppers, A.L., Ginjaar, H.B., Breuning, M.H. and Bakker, E. 2009. Recurrence risk due to germ line mosaicism: Duchenne and Becker muscular dystrophy. Clin. Genet. 75: 465-472.
- 6. Kasper, C.K. and Buzin, C.H. 2009. Mosaicism and haemophilia. Haemophilia. E-published.
- Marcar, L., Maclaine, N.J., Hupp, T.R. and Meek, D.W. 2010. Mage-A cancer/ testis antigens inhibit p53 function by blocking its interaction with chromatin. Cancer Res. 70: 10362-10370.
- Sang, M., Wang, L., Ding, C., Zhou, X., Wang, B., Wang, L., Lian, Y. and Shan, B. 2011. Melanoma-associated antigen genes-an update. Cancer Lett. 302: 85-90.
- 9. Feng, Y., Gao, J. and Yang, M. 2011. When MAGE meets RING: insights into biological functions of MAGE proteins. Protein Cell 2: 7-12.

#### CHROMOSOMAL LOCATION

Genetic locus: MAGEB5 (human) mapping to Xp21.3.

#### SOURCE

MAGE-B5 (P-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MAGE-B5 of human origin.

#### PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-240654 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## **APPLICATIONS**

MAGE-B5 (P-12) is recommended for detection of MAGE-B5 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 other MAGE-B family members.

Suitable for use as control antibody for MAGE-B5 siRNA (h): sc-91013, MAGE-B5 shRNA Plasmid (h): sc-91013-SH and MAGE-B5 shRNA (h) Lentiviral Particles: sc-91013-V.

Molecular Weight of MAGE-B5: 32 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) Immunofluo-rescence: 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.