

MAGE-C2 (K-15): sc-68603

BACKGROUND

MAGE-C2/C3 (melanoma-associated antigen C2, hepatocellular carcinoma-associated antigen 587) is a 373 amino acid protein encoded by the human gene MAGEC2. Genes of the MAGE family direct the expression of tumor antigens that are recognized on human melanomas by autologous cytolytic T lymphocytes. Among tumor tissues, MAGE-C2/C3 is frequently expressed in seminomas, melanomas, and bladder transitional cell carcinomas. It is also expressed in a significant fraction of head and neck carcinomas, breast carcinomas, nonsmall-cell lung carcinomas, and sarcomas. In hepatocellular carcinoma, there is an inverse correlation between tumor differentiation and protein expression, i.e. the lower the differentiation, the higher percentage of expression. MAGE-C2/C3 is not expressed in normal tissues, except in germ cells in the seminiferous tubules and in Purkinje cells of the cerebellum. It is strongly expressed in spermatogonia and primary spermatocytes, however, at later stages of maturation, expression gradually decreases to become undetectable in mature spermatids.

REFERENCES

- Lurquin, C., et al. 2005. Contrasting frequencies of antitumor and anti-vaccine T cells in metastases of a melanoma patient vaccinated with a MAGE tumor antigen. *J. Exp. Med.* 201: 249-257.
- Chapiro, J., et al. 2006. Destructive cleavage of antigenic peptides either by the immunoproteasome or by the standard proteasome results in differential antigen presentation. *J. Immunol.* 176: 1053-1061.
- Liang, Z., et al. 2006. The expression of 11 cancer/testis (CT) antigen genes in esophageal carcinoma. *Zhonghua Zhong Liu Za Zhi* 27: 534-537.
- Zhuang, R., et al. 2006. Generation of monoclonal antibodies to cancer/testis (CT) antigen CT10/MAGE-C2. *Cancer Immun.* 6: 7.
- Atanackovic, D., et al. 2006. Expression of cancer-testis antigens as possible targets for antigen-specific immunotherapy in head and neck squamous cell carcinoma. *Cancer Biol. Ther.* 5: 1218-1225.
- Atanackovic, D., et al. 2007. Cancer-testis antigens are commonly expressed in multiple myeloma and induce systemic immunity following allogeneic stem cell transplantation. *Blood* 109: 1103-1112.

CHROMOSOMAL LOCATION

Genetic locus: MAGEC2 (human) mapping to Xq27.2.

SOURCE

MAGE-C2 (K-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MAGE-C2 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-68603 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MAGE-C2 (K-15) is recommended for detection of melanoma-associated antigen C2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

Suitable for use as control antibody for MAGE-C2 siRNA (h): sc-62580, MAGE-C2 shRNA Plasmid (h): sc-62580-SH and MAGE-C2 shRNA (h) Lentiviral Particles: sc-62580-V.

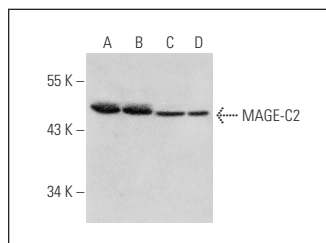
Molecular Weight of MAGE-C2: 41 kDa.

Positive Controls: U-698-M whole cell lysate: sc-364799, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

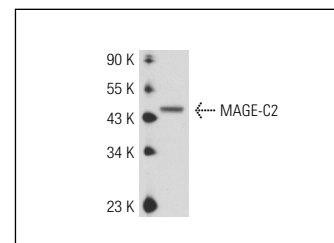
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



MAGE-C2 (K-15): sc-68603. Western blot analysis of MAGE-C2 expression in U-698-M (A), HeLa (B), Jurkat (C) and K-562 (D) whole cell lysates.



MAGE-C2 (K-15): sc-68603. Western blot analysis of MAGE-C2 expression in 293T whole cell lysate.

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.