

# PRAMEF12 (V-15): sc-69224

## BACKGROUND

Several tumor-associated antigen families, such as MAGE, GAGE, PRAME and BAGE, are of particular interest in tumor immunology because their expression, with exception of testis and fetal tissues, seems to be restricted to tumor cells. The MAGE, BAGE and GAGE genes code for distinct antigens that are recognized by autologous cytolytic T lymphocytes. Many of these antigens represent suitable targets for tumor immunotherapy, since their expression in human melanoma cells is common and highly specific. PRAMEF12 (preferentially expressed antigen of melanoma family member 12) is a 483 amino acid protein containing three LRR (leucine-rich) repeats and is a member of the PRAME family. PRAMEF12 has homology to a melanoma-associated protein, PRAME. PRAME is a melanoma antigen recognized by cytotoxic T cells (CTLs) and is expressed in a variety of cancer cells, including leukemic cells. The PRAME gene is expressed at a high level in a very large fraction of tumors, such as melanomas, non small-cell lung carcinomas, sarcomas, head and neck tumors and renal carcinomas.

## REFERENCES

- Li, J., Yang, Y., Fujie, T., Baba, K., Ueo, H., Mori, M. and Akiyoshi, T. 1996. Expression of BAGE, GAGE, and MAGE genes in human gastric carcinoma. *Clin. Cancer Res.* 2: 1619-1625.
- Dalerba, P., Ricci, A., Russo, V., Rigatti, D., Nicotra, M.R., Mottolese, M., Bordignon, C., Natali, P.G. and Traversari, C. 1998. High homogeneity of MAGE, BAGE, GAGE, tyrosinase and Melan-A/MART-1 gene expression in clusters of multiple simultaneous metastases of human melanoma: implications for protocol design of therapeutic antigen-specific vaccination strategies. *Int. J. Cancer* 77: 200-204.
- van Baren, N., Chambost, H., Ferrant, A., Michaux, L., Ikeda, H., Millard, I., Olive, D., Boon, T. and Coulie, P.G. 1998. PRAME, a gene encoding an antigen recognized on a human melanoma by cytolytic T cells, is expressed in acute leukaemia cells. *Br. J. Haematol.* 102: 1376-1379.
- Pold, M., Zhou, J., Chen, G.L., Hall, J.M., Vescio, R.A. and Berenson, J.R. 1999. Identification of a new, unorthodox member of the MAGE gene family. *Genomics* 59: 161-167.
- Matsushita, M., Ikeda, H., Kizaki, M., Okamoto, S., Ogasawara, M., Ikeda, Y. and Kawakami, Y. 2001. Quantitative monitoring of the PRAME gene for the detection of minimal residual disease in leukaemia. *Br. J. Haematol.* 112: 916-926.
- Murphy, R., Baptista, J., Holly, J., Umpleby, A.M., Ellard, S., Harries, L.W., Crolla, J., Cundy and T., Hattersley, A.T. 2008. Severe intrauterine growth retardation and atypical diabetes associated with a translocation breakpoint disrupting regulation of the Insulin-like growth factor 2 gene. *J. Clin. Endocrinol. Metab.* 93: 4373-4380.
- Stansfield, W.E., Charles, P.C., Tang, R.H., Rojas, M., Bhati, R., Moss, N.C., Patterson and C., Selzman, C.H. 2009. Regression of pressure-induced left ventricular hypertrophy is characterized by a distinct gene expression profile. *J. Thorac. Cardiovasc. Surg.* 137: 232-8, 238e1.

## RESEARCH USE

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

## CHROMOSOMAL LOCATION

Genetic locus: Pramef12 (mouse) mapping to 4 E1.

## SOURCE

PRAMEF12 (V-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PRAMEF12 of mouse 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-69224 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PRAMEF12 (V-15) is recommended for detection of PRAMEF12 of mouse 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).

Suitable for use as control antibody for PRAMEF12 siRNA (m): sc-76222, PRAMEF12 shRNA Plasmid (m): sc-76222-SH and PRAMEF12 shRNA (m) Lentiviral Particles: sc-76222-V.

Molecular Weight of PRAMEF12: 55 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) 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.