

PRAMEL (C-17): sc-248303

BACKGROUND

Several tumor-associated antigen families, such as MAGE, GAGE, PRAME and BAGE, are of 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 because their expression in human melanoma cells is common and highly specific. PRAMEL (preferentially expressed antigen in melanoma-like), also known as leucine-rich repeat-containing protein PRAME-like, is a 520 amino acid protein that belongs to the PRAME family. Existing as two alternatively spliced isoforms, PRAMEL contains three leucine-rich repeats and is encoded by a gene that maps to human chromosome 22.

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.
- 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.
- 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.
- Pellat-Deceunynck, C., Mellerin, M.P., Labarrière, N., Jego, G., Moreau-Aubry, A., Harousseau, J.L., Jotereau, F. and Bataille, R. 2000. The cancer germ-line genes MAGE-1, MAGE-3 and PRAME are commonly expressed by human myeloma cells. *Eur. J. Immunol.* 30: 803-809.
- 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.
- Birtle, Z., Goodstadt, L. and Ponting, C. 2005. Duplication and positive selection among hominin-specific PRAME genes. *BMC Genomics* 6: 120.
- Facucho-Oliveira, J.M., Alderson, J., Spikings, E.C., Egginton, S. and St John, J.C. 2007. Mitochondrial DNA replication during differentiation of murine embryonic stem cells. *J. Cell Sci.* 120: 4025-4034.
- Wadelin, F., Fulton, J., McEwan, P.A., Spriggs, K.A., Emsley, J. and Heery, D.M. 2010. Leucine-rich repeat protein PRAME: expression, potential functions and clinical implications for leukaemia. *Mol. Cancer* 9: 226.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

CHROMOSOMAL LOCATION

Genetic locus: PRAMEL (human) mapping to 22.

SOURCE

PRAMEL (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of PRAMEL 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-248303 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PRAMEL (C-17) is recommended for detection of PRAMEL 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).

Molecular Weight of PRAMEL isoforms: 58/32 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) 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.

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.