

Product Information

Anti-MART-1 antibody produced in rabbit
affinity isolated antibody, buffered aqueous solution

Product Number **SAB4200737**

Product Description

Anti-MART-1 is produced in rabbit using a synthetic peptide corresponding to a sequence from the internal region of human MART-1 protein (GeneID 2315), conjugated to KLH. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-MART-1 recognizes human MART-1 protein. The antibody may be used in various immunochemical techniques including Immunoblotting (predicated MW ~13 kDa, observed at ~16-18 due to PTMs), Immunofluorescence and Immunohistochemistry. Detection of the MART-1 band by Immunoblotting is specifically inhibited by the immunizing protein.

Melanoma antigen recognized by T-cells 1 (MART-1), also known as Melan-A, Antigen LB39-AA or Antigen SK29-AA, is a type III signal-anchor protein that is localized mainly to the endoplasmic reticulum, the trans-Golgi network and melanosomes.¹⁻² MART-1 protein is expressed specifically in normal skin, retina, melanocyte cell lines and melanomas.¹⁻³ It is a melanoma antigen recognized by T-cells and belongs to the melanocyte differentiation markers thus widely used for diagnosis of melanocytic tumors. Six other melanoma associated antigens recognized by cytotoxic T-cells include: MAGE-1, Tyrosinase, gp100, gp75, BAGE-1 and CAGE-1.³ MART-1 is specifically recognized by HLA-A2 restricted tumor-infiltrating T lymphocytes (TIL-1) in melanoma patients and is suggested to be involved in tumor progression.⁴ It is also involved in pigmentation process and is suggested as a candidate marker for albinism.^{2, 5-6}

Anti-MART-1 antibody may be a useful tool for differentiating melanocytic from nonmelanocytic tumors, in detection of suspected metastatic melanomas and identification of intraepidermal or dermal melanocytic cells by immunohistochemical staining.⁷

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~ 1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store at -20 °C. For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 2-4 µg/mL is recommended using human melanoma SK-Mel-28 cell line extract.

Immunohistochemistry: a working concentration of 5-10 µg/mL is recommended using heat-retrieved formalin-fixed, paraffin-embedded human melanoma sections.

Immunofluorescence: a working concentration of 0.25-0.5 µg/mL is recommended using human melanoma SK-Mel-28 cell line.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

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4. Zhai Y., et al., *J Immunother.*, **20**, 15-25 (1997).
5. Giordano F., et al., *Hum Mol Genet.*, **18**, 4530-45 (2009).
6. Koenig A., et al., *Vet Pathol.*, **38**, 427-35 (2001).

7. Drabeni M., et al., *Am J Dermatopathol.*, **35**, 56-63 (2013).

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