

Product Information

Anti-Melan-A antibody, Mouse monoclonal
clone A103, purified from hybridoma cell culture

Catalog Number **M6570**

Product Description

Monoclonal Anti-Melan-A (mouse IgG1 isotype) is derived from the hybridoma A103 produced by the fusion of mouse myeloma cells (SP2/0 cells) and splenocytes from mice immunized with a human recombinant Melan-A protein (Gene ID: 2315).¹ The isotype is determined using a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2.

Monoclonal Anti-Melan-A recognizes human^{1,2,4} and canine³ Melan-A. The antibody may be used in ELISA,¹ immunoblotting (~22 kDa),¹ immunocytochemistry,³ immunoprecipitation,¹ and immunohistochemistry.¹⁻⁴

Melan-A (also known as MART1) is a melanoma antigen recognized by T cells. The protein is expressed mainly in cells and tumors of melanocytic lineage and thus belongs to the melanocyte differentiation markers.

It may have a role in pigmentation since its expression pattern and sub cellular distribution is similar to other melanosomal proteins and correlates with melanin content.¹⁻⁴ For example, Pmel17 is the human homologue of murine *silver*, whose disruption of function produces a silver hair color in mice. Similar to Melan-A, this protein was cloned as a specific antigen recognized by tumor infiltrating T lymphocytes. Both proteins are highly expressed in melanoma cells.

Melan-A is important for Pmel17 activity, forms a complex with it, and affects its expression, stability, trafficking, and processing that is required for melanosome structure and maturation. Thus, Melan-A is important for Pmel17 function and therefore it is important for mammalian pigmentation.⁵

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: ~2 mg/mL

Precautions and Disclaimer

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

Storage/Stability

For continuous use, store at 2–8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in “frost-free” freezers, 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 0.1–0.2 µg/mL is recommended using total cell extract of SKMEL19 cells.

Note: In order to obtain the best results in various techniques and preparations, it is recommended to determine the optimal working dilution by titration.

References

1. Chen, Y.T. et al., *Proc. Natl. Acad. Sci. USA*, **93**, 5915-5919 (1996).
2. Jungbluth, A.A. et al., *Am. J. Surg. Pathol.*, **22**, 595-602 (1998).
3. Koenig, A. et al., *Vet. Pathol.*, **38**, 427-435 (2001).
4. Jungbluth, A.A. et al., *Virchows Arch.*, **434**, 429-435 (1999).
5. Hoashi, T. et al., *J. Biol. Chem.*, **280**, 1406-14016 (2005).

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