

Melan-A (h2): 293T Lysate: sc-159493

BACKGROUND

Melanoma-associated antigens recognized by cytotoxic T lymphocytes (CTL) have been grouped into three categories: melanocyte differentiation antigens, cancer/testis-specific antigens and mutated or aberrantly expressed antigens. Many of these antigens consist of peptides that are presented to T cells by HLA molecules, and they represent potential targets for cancer immunotherapy. Melan-A (also designated MART-1) is a melanocyte differentiation antigen that is specific to melanomas, melanocyte cell lines and retina. Melan-A peptide is recognized by most HLA-A2-restricted tumor-specific tumor-infiltrating lymphocytes in patients with melanoma. Anti-melanoma cytotoxic T lymphocytes can be generated with a Melan-A peptide, implicating Melan-A as a potential candidate for antigen-specific immunotherapy in melanoma patients.

REFERENCES

- Chen, Y.T., et al. 1996. Serological analysis of Melan-A (MART-1), a melanocyte-specific protein homogeneously expressed in human melanomas. *Proc. Natl. Acad. Sci. USA* 93: 5915-5919.
- Kawakami, Y. et al. 1997. Production of recombinant MART-1 proteins and specific antiMART-1 polyclonal and monoclonal antibodies: use in the characterization of the human melanoma antigen MART-1. *J. Immunol. Methods* 202: 13-25.
- Van den Eynde, B.J., et al. 1997. Tumor antigens recognized by T lymphocytes. *Int. J. Clin. Lab. Res.* 27: 81-86.
- Kirkin, A.F., et al. 1998. Melanoma-associated antigens recognized by cytotoxic T lymphocytes. *APMIS* 106: 665-679.
- Busam, K.J., et al. 1998. Expression of Melan-A (MART-1) in benign melanocytic nevi and primary cutaneous malignant melanoma. *Am. J. Surg. Pathol.* 22: 976-982.
- Loftus, D.J., et al. 1998. Peptides derived from self-proteins as partial agonists and antagonists of human CD8⁺ T-cell clones reactive to melanoma/melanocyte epitope MART-1 (27-35). *Cancer Res.* 58: 2433-2439.
- Vignard, V., et al. 2005. Adoptive transfer of tumor-reactive Melan-A-specific CTL clones in melanoma patients is followed by increased frequencies of additional Melan-A-specific T cells. *J. Immunol.* 175: 4797-4805.
- Appay, V., et al. 2006. Decreased specific CD8⁺ T cell cross-reactivity of antigen recognition following vaccination with Melan-A peptide. *Eur. J. Immunol.* 36: 1805-1814.
- Colombetti, S., et al. 2006. Impact of orthologous Melan-A peptide immunizations on the anti-self Melan-A/HLA-A2 T cell cross-reactivity. *J. Immunol.* 176: 6560-6567.

CHROMOSOMAL LOCATION

Genetic locus: MLANA (human) mapping to 9p24.1.

PRODUCT

Melan-A (h2): 293T Lysate represents a lysate of human Melan-A transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Melan-A (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive Melan-A antibodies. Recommended use: 10-20 µl per lane.

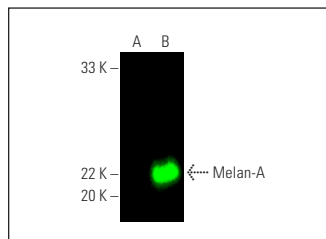
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Melan-A (A103): sc-20032 is recommended as a positive control antibody for Western Blot analysis of enhanced human Melan-A expression in Melan-A transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

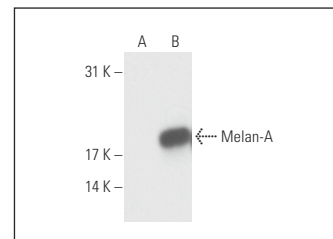
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™
Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



Melan-A (A103) Alexa Fluor® 680: sc-20032 AF680. Direct near-infrared western blot analysis of Melan-A expression in non-transfected: sc-117752 (A) and human Melan-A transfected: sc-159493 (B) 293T whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214.



Melan-A (3H2639): sc-71566. Western blot analysis of Melan-A expression in non-transfected: sc-117752 (A) and human Melan-A transfected: sc-159493 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.