

Melan-A (B-10): sc-271802

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; 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. Antimelanoma 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

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- 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 MART1 (27-35). *Cancer Res.* 58: 2433-2439.

CHROMOSOMAL LOCATION

Genetic locus: MLANA (human) mapping to 9p24.1; Mlana (mouse) mapping to 19 C1.

SOURCE

Melan-A (B-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 81-117 near the C-terminus of Melan-A of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-271802 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Melan-A (B-10) is recommended for detection of Melan-A of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 Melan-A siRNA (h): sc-35920, Melan-A siRNA (m): sc-35921, Melan-A shRNA Plasmid (h): sc-35920-SH, Melan-A shRNA Plasmid (m): sc-35921-SH, Melan-A shRNA (h) Lentiviral Particles: sc-35920-V and Melan-A shRNA (m) Lentiviral Particles: sc-35921-V.

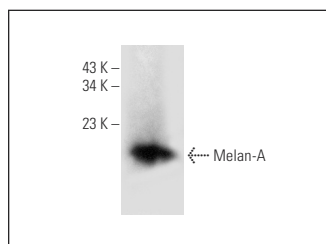
Molecular Weight of acylated Melan-A: 20-24 kDa.

Positive Controls: C32 whole cell lysate: sc-2205, SK-MEL-28 cell lysate: sc-2236 or B16-F0 cell lysate: sc-2298.

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Melan-A (B-10): sc-271802. Western blot analysis of Melan-A expression in SK-MEL-28 whole cell lysate.

STORAGE

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

RESEARCH USE

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

CONJUGATES

See **Melan-A (A103): sc-20032** for Melan-A antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.