

## DESCRIPTION

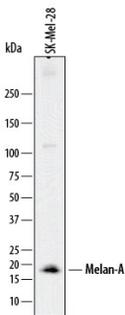
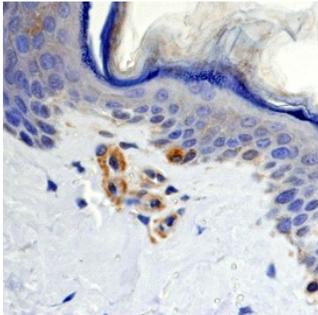
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Melan-A/MART-1 in ELISA.
<b>Source</b>	Monoclonal Mouse IgG <sub>2A</sub> Clone # 872719
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human Melan-A/MART-1 Asn52-Pro118 Accession # Q16655
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.5 µg/mL	See Below
<b>Immunohistochemistry</b>	8-25 µg/mL	See Below

## DATA

<p><b>Western Blot</b></p>  <p><b>Detection of Human Melan-A/MART-1 by Western Blot.</b> Western blot shows lysates of SK-Mel-28 human malignant melanoma cell line. PVDF membrane was probed with 0.5 µg/mL of Mouse Anti-Human Melan-A/MART-1 Monoclonal Antibody (Catalog # MAB8008) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Melan-A/MART-1 at approximately 18 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p><b>Immunohistochemistry</b></p>  <p><b>Melan-A/MART-1 in Normal Human Skin.</b> Melan-A/MART-1 was detected in immersion fixed paraffin-embedded sections of human skin using Mouse Anti-Human Melan-A/MART-1 Monoclonal Antibody (Catalog # MAB8008) at 15 µg/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Mouse HRP-DAB Cell &amp; Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to melanocytes. View our protocol for <a href="#">Chromogenic IHC Staining of Paraffin-embedded Tissue Sections</a>.</p>
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## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Melan-A (MeLANoma-A; also MART-1, LB39-AA and SK29-AA, MLANA) is an 18-24 kDa member of a melanocyte lineage-specific, structurally-unrelated family of proteins. It is expressed only in melanocytes, retinal pigment epithelium and melanoma cells. Melan-A is involved in melanosome formation, and appears to stabilize both GPCR143/OA-1 and PMEL, thus ensuring the formation of a stage 2 (melanin production within a fibrillar matrix) melanosome. It is typically found in the Golgi, and upon inversion of its topology, becomes embedded in the ER. It may also appear in endosomes and on the cell surface where, in theory, it is recognizable by a special naïve type of CD8<sup>+</sup> T cell that is derived from the thymus. Notably, these cells normally appear to be unresponsive, even in the face of exposure to skin melanocytes during wound healing. Human MLANA is a 118 amino acid (aa) type III (no signal sequence) transmembrane protein. It contains a 26 aa extracellular region (aa 1-26), and a 71 aa cytoplasmic domain (aa 48-118). There is one utilized phosphorylation site at Ser108, and the molecule is known to undergo acylation. Over aa 52-118, human Melan-A shares 62% aa sequence identity with mouse MLANA.