

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human Melan-A/MART-1 in direct ELISAs and Western blots.                                                                                                                                                                                                            |
| <b>Source</b>             | Polyclonal Sheep IgG                                                                                                                                                                                                                                                        |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human Melan-A/MART-1<br>Asn52-Pro118<br>Accession # Q16655                                                                                                                                                                              |
| <b>Conjugate</b>          | Alexa Fluor 350<br>Excitation Wavelength: 346 nm<br>Emission Wavelength: 442 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

#### 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.

**Western Blot** Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

Melan-A (MeLANoma-A; also MART-1, LB39-AA and SK29-AA, MLANA) is a 18-24 kDa member of a melanocyte lineage-specific, generally 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, creating a MW of 23-34 kDa in SDS-PAGE. Over aa 52-118, human Melan-A shares 62% aa sequence identity with mouse MLANA.

#### PRODUCT SPECIFIC NOTICES

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