

Product datasheet

Anti-Melanoma antibody [HMB45 + M2-7C10 + M2-9E3 + T311] ab733

Recombinant

★★★★★ [2 Abreviews](#) [11 References](#) [3 Images](#)

Overview

Product name	Anti-Melanoma antibody [HMB45 + M2-7C10 + M2-9E3 + T311]
Description	Mouse recombinant multiclonal [HMB45 + M2-7C10 + M2-9E3 + T311] to Melanoma
Host species	Mouse
Specificity	The HMB45 clone reacts with a neuraminidase-sensitive oligosaccharide side chain of a glycoconjugate present in immature melanosomes. The HMB45-reactive antigen is present in cutaneous melanocytes, prenatal and infantile retinal pigment epithelium and melanoma cells and is thought to be oncofetal in nature. This antibody has been shown to label the majority of melanomas. MART-1 recognizes a protein of 18kDa, identified at MART-1 (Melanoma Antigen Recognized by T cells 1) or Melan-A. Melan-A is a useful addition to melanoma panels as it is apparently specific for melanocytic lesions. Studies have also shown that MART-1 is more sensitive than HMB45 when labeling metastatic melanomas. Tyrosinase is a key enzyme involved in the initial stages of melanin biosynthesis. Studies have shown Tyrosinase to be a more sensitive marker when compared to HMB45 and MART-1. It has also shown to label a higher percentage of desmoplastic melanomas than HMB45.
Tested applications	Suitable for: ICC/IF, Flow Cyt (Intra), IHC-Fr, IHC-P
Species reactivity	Reacts with: Human
Immunogen	HMB45 - Pigmented melanoma metastases from LN MART-1 - Recombinant human MART-1 protein Tyrosinase - Recombinant tyrosinase protein
Positive control	Metastatic melanoma in lymph node.
General notes	The combination of HMB45, MART-1 (M2-7C10 + M2-9E3) and Tyrosinase (T311) (SwissProt: P14679 Human, Omim: 606933 Human, Entrez Gene: 22173 Mouse, Entrez Gene: 308800 Rat) make this quadruple antibody cocktail a first-order pan melanoma screener, and may prove to be a valuable marker for melanoma metastasis in sentinel lymph nodes (see reference 3.).

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

Please note that this antibody is an oligoclonal antibody. It is a cocktail of monoclonal antibodies that have been carefully selected. Oligoclonal antibodies have not only the specificity and batch-to-batch consistency of a monoclonal antibody, but also have the advantage of the sensitivity of a polyclonal antibody due to their ability to recognize multiple epitopes on an antigen.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.1% Sodium azide Constituents: PBS, Carrier protein
Purity	Affinity purified
Purification notes	Antibodies in this cocktail- HMB45, MART-1 and Tyrosinase are affinity purified.
Primary antibody notes	The combination of HMB45, MART-1 (DT101 + BC199) and Tyrosinase (T311) make this quadruple antibody cocktail a first-order pan melanoma screener, and may prove to be a valuable marker for melanoma metastasis in sentinel lymph nodes (see reference 3.).
Clonality	Recombinant Multiclonal
Clone number	HMB45 + M2-7C10 + M2-9E3 + T311
Myeloma	unknown
Isotype	IgG
Light chain type	kappa

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab733 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF	★★★★★ (1)	Use at an assay dependent concentration.
Flow Cyt (Intra)		1/100.
IHC-Fr		Use at an assay dependent concentration. ABC method.
IHC-P	★★★★☆ (1)	1/25 - 1/50. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. It is sometimes difficult to interpret DAB stained melanomas due to endogenous pigment, therefore we recommend you substitute an AEC or a Fast Red substrate protocol.

Target

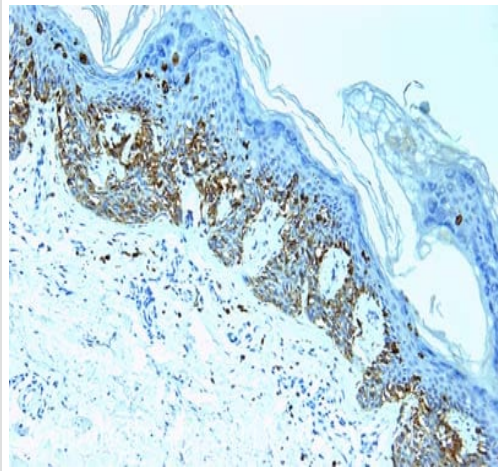
Relevance

Malignant melanoma is a malignant neoplasm of melanocytes, arising de novo or from a pre-existing benign nevus, which occurs most often in the skin but also may involve other sites.

Cellular localization

Membrane; Single-pass membrane protein

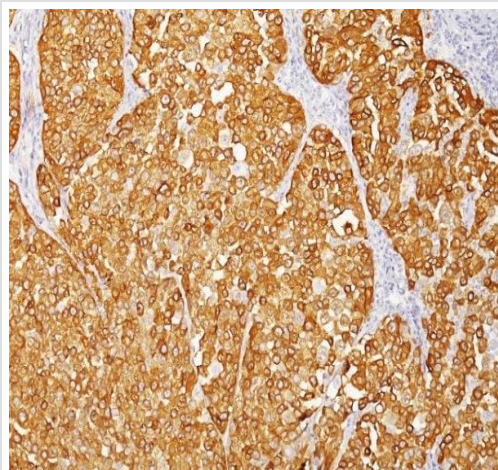
Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Melanoma antibody [HMB45 + M2-7C10 + M2-9E3 + T311] (ab733)

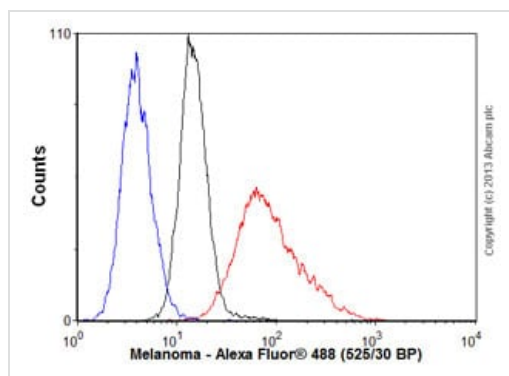
IHC image of ab733 staining in human melanoma formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab733, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Melanoma antibody [HMB45 + M2-7C10 + M2-9E3 + T311] (ab733)

ab733 staining human melanoma by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections).



Flow Cytometry (Intracellular) - Anti-Melanoma antibody [HMB45 + M2-7C10 + M2-9E3 + T311] (ab733)

Overlay histogram showing MALME 3M cells stained with ab733 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab733, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-mouse IgG (H&L) (**ab150113**) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG (1µg/1x10⁶ cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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