## PMEL Monoclonal Antibody (HMB45)

**Catalog Number:** MA5-13232

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### Details

<table>
<thead>
<tr>
<th>Size</th>
<th>500 µL</th>
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<tbody>
<tr>
<td>Host/Isotope</td>
<td>Mouse / IgG1, kappa</td>
</tr>
<tr>
<td>Class</td>
<td>Monoclonal</td>
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<tr>
<td>Type</td>
<td>Antibody</td>
</tr>
<tr>
<td>Clone</td>
<td>HMB45</td>
</tr>
<tr>
<td>Immunogen</td>
<td>Extract of pigmented melanoma metastases from lymph nodes</td>
</tr>
<tr>
<td>Conjugate</td>
<td>Unconjugated</td>
</tr>
<tr>
<td>Form</td>
<td>Liquid</td>
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<tr>
<td>Storage buffer</td>
<td>tissue culture supernatant</td>
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<tr>
<td>Contains</td>
<td>0.09% sodium azide</td>
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<tr>
<td>Storage Conditions</td>
<td>4°C</td>
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### Species Reactivity

<table>
<thead>
<tr>
<th>Tested species reactivity</th>
<th>Human</th>
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<tbody>
<tr>
<td>Published species reactivity</td>
<td>Bovine, Mouse, Human, Not Applicable</td>
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### Tested Applications

**Immunohistochemistry (Paraffin) (IHC (P))**  
1:40-1:80  
Western Blot (WB)  
1:50  

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### Published Applications

**Immunocytochemistry (ICC)**  
See 9 publications below  
**Miscellaneous PubMed (MISC)**  
See 1 publications below  
**Flow Cytometry (Flow)**  
See 2 publications below  
**Western Blot (WB)**  
See 5 publications below  
**Immunohistochemistry (IHC)**  
See 16 publications below  
**Immunohistochemistry (Paraffin) (IHC (P))**  
See 1 publications below  
**Neutralization (Neu)**  
See 1 publications below  

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Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.

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**Product specific information**

MA5-13232 targets Melanoma (gp100) in IHC (P) and WB applications and shows reactivity with Human samples.

The MA5-13232 immunogen is extract of pigmented melanoma metastases from lymph nodes.

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**PMEL Antibody (MA5-13232) in IHC**
Formalin-fixed, paraffin-embedded human melanoma stained with Melanoma antibody using peroxidase-conjugate and AEC chromogen. Note cytoplasmic staining of tumor cells.

**PMEL Antibody (MA5-13232) in WB**
Western blot of Melanoma (gp100) using Melanoma (gp100) Monoclonal Antibody (Product # MA5-13232) on 501mel Cells.

- kDa
  - 202-
  - 133-
  - 71-
  - 41-

Western Blot
Human Cells-40
## PubMed References For PMEL Monoclonal Antibody (HMB45)

### Immunocytochemistry References

<table>
<thead>
<tr>
<th>Species / Dilution</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mouse / Not Cited</strong></td>
<td>MA5-13232 was used in immunocytochemistry to propose that VAMP7 mediates fusion of BLOC-1-dependent transport carriers with melanosomes. The Journal of cell biology (Aug 2016; 214: 293). &quot;BLOC-1 and BLOC-3 regulate VAMP7 cycling to and from melanosomes via distinct tubular transport carriers.&quot; Author(s): Dennis MK, Delevoye C, Acosta-Ruiz A, Hurbain I, Romao M, Hesketh GG, Goff PS, Sviderskaya EV, Bennett DC, Luzio JP, Galli T, Owen DJ, Raposo G, Marks MS. PubMed Article URL: <a href="http://dx.doi.org/10.1083/jcb.201605090">http://dx.doi.org/10.1083/jcb.201605090</a></td>
</tr>
<tr>
<td><strong>Mouse / Not Cited</strong></td>
<td>MA5-13232 was used in immunocytochemistry to study the delivery of OCA2 to melanosomes and the distinct roles played by AP-1 and AP-3. Molecular biology of the cell (Aug 2012; 23: 3178). &quot;Differential recognition of a dileucine-based sorting signal by AP-1 and AP-3 reveals a requirement for both BLOC-1 and AP-3 in delivery of OCA2 to melanosomes.&quot; Author(s): Sitaram A, Dennis MK, Chaudhuri R, De Jesus-Rojas W, Tenza D, Setty SR, Wood CS, Sviderskaya EV, Bennett DC, Raposo G, Bonifacio JS, Marks MS. PubMed Article URL: <a href="http://dx.doi.org/10.1083/jbc.201605090">http://dx.doi.org/10.1083/jbc.201605090</a></td>
</tr>
</tbody>
</table>


Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts (“Documentation”). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation,......
MA5-13232 was used in immunocytochemistry to study the trafficking of melanocyte-specific proteins in Hermansky-Pudlak syndrome type-5 melanocytes.


MA5-13232 was used in immunocytochemistry to investigate the role of proprotein convertase cleavage in melanosome biogenesis.

The Journal of cell biology (May 2003; 161: 521) "Proprotein convertase cleavage liberates a fibrillogenic fragment of a resident glycoprotein to initiate melanosome biogenesis." Author(s): Berson JF, Theos AC, Harper DC, Tenza D, Raposo G, Marks MS PubMed Article URL: http://dx.doi.org/10.1083/jcb.200302072

1 Miscellaneous PubMed References

<table>
<thead>
<tr>
<th>Species / Dilution</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA5-13232</td>
<td>was used in immunohistochemistry to present a case of highly aggressive ocular melanoma</td>
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</table>

Human / Not Cited


2 Flow Cytometry References

<table>
<thead>
<tr>
<th>Species / Dilution</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA5-13232</td>
<td>was used in flow cytometry to investigate the role of BLOC-2 in endosomal tubular transport in melanosomes</td>
</tr>
</tbody>
</table>

Mouse / Not Cited


MA5-13232 was used in flow cytometry to examine the allogenic glioma cells for the generation of therapeutic vaccines or cellular therapy.

Human / Not Cited


5 Western Blot References

<table>
<thead>
<tr>
<th>Species / Dilution</th>
<th>Summary</th>
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<tbody>
<tr>
<td>MA5-13232</td>
<td>was used in western blot to identify antigens recognized by autoreactive CD4 T lymphocytes isolated from a Vogt-Koyanagi-Harada patient who did not express HLA-DRB1*04:05</td>
</tr>
</tbody>
</table>

Human / Not Cited


MA5-13232 was used in western blot to investigate the role of PMEL mutations in physiological and pathological amyloid fibril formation.

Mouse / Not Cited

PLoS genetics (Sep 2011; 7: null) "Mutations in or near the transmembrane domain alter PMEL amyloid formation from functional to pathogenic." Author(s): Watt B, Tenza D, Lemmon MA, Kerje S, Raposo G, Andersson L, Marks MS PubMed Article URL: http://dx.doi.org/10.1371/journal.pgen.1002286
MA5-13232 was used in western blot to investigate the role of cell-specific ATP7A transport in copper-dependent tyrosinase activity of melanosomes

Mouse / Not Cited

Nature (Aug 2008; 454: 1142)
"Cell-specific ATP7A transport sustains copper-dependent tyrosinase activity in melanosomes."
Author(s): Setty SR, Tenza D, Sviderskaya EV, Bennett DC, Raposo G, Marks MS
PubMed Article URL: http://dx.doi.org/10.1038/nature07163

MA5-13232 was used in western blot to study the behavior and functional abilities of melanocytes expressing MC1R red hair color variants

Human / 1:500

Journal of cellular physiology (May 2008; 215: 344)
"Melanocytes expressing MC1R polymorphisms associated with red hair color have altered MSH-ligand activated pigmented responses in coculture with keratinocytes."
Author(s): Roberts DW, Newton RA, Leonard JH, Sturm RA
PubMed Article URL: http://dx.doi.org/10.1002/jcp.21318

MA5-13232 was used in western blot to study the regulation of the melanosomal matrix protein gp100 by Rab7

Human / Not Cited

The Journal of investigative dermatology (Jan 2008; 128: 143)
"Rab7 regulates maturation of melanosomal matrix protein gp100/Pmel17/Silv."
PubMed Article URL: http://dx.doi.org/10.1038/sj.jid.5700964

16 Immunohistochemistry References

<table>
<thead>
<tr>
<th>Species / Dilution</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human / Not Cited</td>
<td></td>
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</table>

International journal of gynecological pathology : official journal of the International Society of Gynecological Pathologists (May 2014; 33: 263)
"ASPL-TFE3 translocation in vulvar/avulval alveolar soft part sarcoma."
Author(s): Jabbour MN, Seoud M, Al-Ahmadie H, Abdul-Karim FW, Zaatari GS
PubMed Article URL: http://dx.doi.org/10.1097/PGP.0b013e318290407c

MA5-13232 was used in immunohistochemistry to report on a case of vulvovaginal alveolar soft part sarcoma

Human / 1:1000

The American journal of pathology (Sep 2012; 181: 785)
"Targeting BRAF(V600E) in an inducible murine model of melanoma."
Author(s): Hooijkaas AI, Gadiot J, van der Valk M, Mooi WJ, Blank CU
PubMed Article URL: http://dx.doi.org/10.1016/j.ajpath.2012.06.002

MA5-13232 was used in immunohistochemistry to study the effects of targeting BRAF(V600E) on melanoma growth in an inducible murine model

Mouse / 1:1000

Cancer research (Jun 2012; 72: 3105)
"Genetic ablation of SOX18 function suppresses tumor lymphangiogenesis and metastasis of melanoma in mice."
Author(s): Duong T, Proulx ST, Luciani P, Leroux JC, Detmar M, Koopman P, Francois M
PubMed Article URL: http://dx.doi.org/10.1158/0008-5472.CAN-11-4026

MA5-13232 was used in immunohistochemistry to report on a case of sporadic haemangioblastoma of the kidney with rhabdoid features and focal CD10 expression

Human / 1:200

Diagnostic pathology (Apr 2012; 7: null)
"Sporadic haemangioblastoma of the kidney with rhabdoid features and focal CD10 expression: report of a case and literature review."
Author(s): Yin WH, Li J, Chan JK
PubMed Article URL: http://dx.doi.org/10.1186/1746-1596-7-39

MA5-13232 was used in immunohistochemistry to report on a case of sporadic haemangioblastoma of the kidney with rhabdoid features and focal CD10 expression

Human / 1:50

Photodermatology, photoimmunology and photomedicine (Feb 2012; 28: 17)
"Effect of PUVA therapy on melanocytes and keratinocytes in non-segmental vitiligo: histopathological, immunohistochemical and ultrastructural study."
Author(s): Anbar TS, El-Sawy AE, Attia SK, Barakat MT, Moftah NH, El-Ammawy TS, Abdel-Rahman AT, El-Tonsy MH
PubMed Article URL: http://dx.doi.org/10.1111/j.1600-0781.2011.00631.x


Products are warranted to operate or perform substantially in conformity with published Product specifications in effect at the time of sale, as set forth in the Product documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, such warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample.
MA5-13232 was used in immunohistochemistry to report on a case of primary myoepithelial carcinoma of the larynx.

Pathology, research and practice (Feb 2011; 207: 127)
"Primary myoepithelial carcinoma of the larynx: case report and review of the literature."
Author(s): Yu G, Qu G, Kong L, Pan X, Wang W, Ly J
PubMed Article URL: http://dx.doi.org/10.1016/j.prp.2010.10.006

MA5-13232 was used in immunohistochemistry to report a clinical case of microangiopathic hemolytic anemia
peripheral epithelioid cell neoplasm in uterus.

International journal of gynecological pathology : official journal of the International Society of Gynecological Pathologists (Jan 2011; 30: 71)
"Microscopic uterine lymphangiolyiomatosis peripheral epithelioid cell neoplasm: a case report with the earliest manifestation of this enigmatic neoplasm."
Author(s): Clay MR, Gibson P, Lowell J, Cooper K
PubMed Article URL: http://dx.doi.org/10.1097/PGP.0b013e3181efe08d

MA5-13232 was used in immunohistochemistry to study patterns of repigmentation in two cases of hypopigmented type of vitiligo.

Human / Not Cited
Photodermatology, photoimmunology and photomedicine (Jun 2009; 25: 156)
"Patterns of repigmentation in two cases of hypopigmented type of vitiligo."
Author(s): Anbar TS, El-Sawy AE, Attia SK, Mottah NH, El-Tonsy MH
PubMed Article URL: http://dx.doi.org/10.1111/j.1600-0781.2009.00423.x

MA5-13232 was used in immunohistochemistry to investigate the differentiating features between primary melanoma and its cutaneous metastasis.

Romanian journal of internal medicine = Revue roumaine de medecine interne (Jun 2009; 46: 375)
"Cutaneous metastases of malignant melanoma--how difficult can it be?"
PubMed Article URL: http://dx.doi.org/null

MA5-13232 was used in immunohistochemistry to study pulmonary meningothelial-like nodules.

The American journal of surgical pathology (Apr 2009; 33: 487)
"Pulmonary meningothelial-like nodules: new insights into a common but poorly understood entity."
Author(s): Mukhopadhyay S, El-Zammar OA, Katzenstein AL
PubMed Article URL: http://dx.doi.org/10.1097/PAS.0b013e3181b1de7

MA5-13232 was used in immunohistochemistry to investigate the level of CD1a in uterine epithelioid smooth muscle tumors.

Annals of diagnostic pathology (Dec 2008; 12: 401)
"Epithelioid smooth muscle tumors of the uterus do not express CD1a: a potential immunohistochemical adjunct in their distinction from uterine perivascular epithelioid cell tumors."
Author(s): Fadare O, Liang SX
PubMed Article URL: http://dx.doi.org/10.1016/j.anndiagpath.2008.04.009

MA5-13232 was used in immunohistochemistry to identify the proton pump on immature melanosomes as the vacuolar H(+)-ATPase a3 isoform.

Cell and tissue research (Jun 2008; 332: 447)
"Vacular-type H(+)-ATPase with the a3 isoform is the proton pump on prematur melanosomes."
Author(s): Tabata H, Kawamura N, Sun-Wada GH, Wada Y
PubMed Article URL: http://dx.doi.org/10.1007/s00441-008-0597-5

MA5-13232 was used in immunohistochemistry to study the correlation between cellular defects, genotype and clinical phenotype in Chediak-Higashi syndrome.

The Journal of investigative dermatology (Nov 2007; 127: 2674)
"Cellular defects in Chediak-Higashi syndrome correlate with the molecular genotype and clinical phenotype."
PubMed Article URL: http://dx.doi.org/10.1038/sj.jid.5700899

MA5-13232 was used in immunohistochemistry to report on a case of primary myoepithelial carcinoma of the larynx.

"Melanosis in a Holstein heifer."
Author(s): Oruç E
PubMed Article URL: http://dx.doi.org/10.1111/j.1439-0442.2007.00954.x


Bovine / Not Cited
"Melanosis in a Holstein heifer."
Author(s): Oruç E
PubMed Article URL: http://dx.doi.org/10.1111/j.1439-0442.2007.00954.x
<table>
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<tr>
<th>Human / Not Cited</th>
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<tr>
<td><strong>MA5-13232 was used in immunohistochemistry to report a clinical case of t(6;11)(p21;q12) renal-cell carcinoma</strong></td>
</tr>
<tr>
<td><strong>Genes, chromosomes and cancer (May 2007; 46: 419)</strong></td>
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<tr>
<td>&quot;Characterization of t(6;11)(p21;q12) in a renal-cell carcinoma of an adult patient.&quot;</td>
</tr>
<tr>
<td>Author(s): Pecciarini L, Cangi MG, Lo Cunsolo C, Macri E, Dal Cin E, Martignoni G, D’Ogliori C</td>
</tr>
<tr>
<td>PubMed Article URL: <a href="http://dx.doi.org/10.1002/gcc.20422">http://dx.doi.org/10.1002/gcc.20422</a></td>
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<table>
<thead>
<tr>
<th>Human / Not Cited</th>
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<tr>
<td><strong>MA5-13232 was used in immunohistochemistry to investigate specific CD8+ tissue-infiltrating T cells in a patient with melanoma</strong></td>
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<tr>
<td><strong>Melanoma research (Apr 2006; 16: 165)</strong></td>
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<tr>
<td>&quot;Accumulation of low-avidity anti-melanocortin receptor 1 (anti-MC1R) CD8+ T cells in the lesional skin of a patient with melanoma-related depigmentation.&quot;</td>
</tr>
<tr>
<td>Author(s): Wankowicz-Kalinska A, Mailliard RB, Olson K, Graham F, Edington H, Kirkwood JM, Martinek S, Das PK, Storkus WJ</td>
</tr>
<tr>
<td>PubMed Article URL: <a href="http://dx.doi.org/10.1097/01.cmr.0000198452.03957.73">http://dx.doi.org/10.1097/01.cmr.0000198452.03957.73</a></td>
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### 1 Immunohistochemistry (Paraffin) References

#### Species / Dilution

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<tr>
<td><strong>MA5-13232 was used in immunohistochemistry - paraffin section to present two cases of epithelioid PEComas</strong></td>
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</tbody>
</table>

#### Summary

Case reports in medicine (Sep 2012; 2012: null)

"Cardiac Epithelioid PEComa: Report of Two Cases and Review of the Literature."

Author(s): Niu H, Wang FW, Zhang PJ, Bing Z

PubMed Article URL: [http://dx.doi.org/10.1155/2012/521678](http://dx.doi.org/10.1155/2012/521678)

### 1 Neutralization References

#### Species / Dilution

<table>
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<tr>
<td><strong>MA5-13232 was used in blocking or activating experiment to study the T cell immune response against melanoma elicited through conjugation of melanoma antigen with mannose receptor antibody</strong></td>
</tr>
</tbody>
</table>

#### Human / Not Cited


"Mannose receptor targeting of tumor antigen pmel17 to human dendritic cells directs anti-melanoma T cell responses via multiple HLA molecules."

Author(s): Ramakrishna V, Treml JF, Vitale L, Connolly JE, O'Neill T, Smith PA, Jones CL, He LZ, Goldstein J, Wallace PK, Keler T, Endres MJ

PubMed Article URL: [http://dx.doi.org/null](http://dx.doi.org/null)