ZETA Corporation

TARGET-VALIDATED AND CHARACTERIZED IVD ANTIBODIES
FOR PATHOLOGY AND IMMUNOTHERAPY

Melanoma Markers from Zeta

Zeta is very proud to share our Melanoma portfolio IVD antibodies researched and developed for Anatomic Pathology market for Immunohistochemistry. Zeta is incorporating highly sensitive technology to develop these primary antibodies that are Target-Validated and Characterized for IHC on FFPE tissue sections.

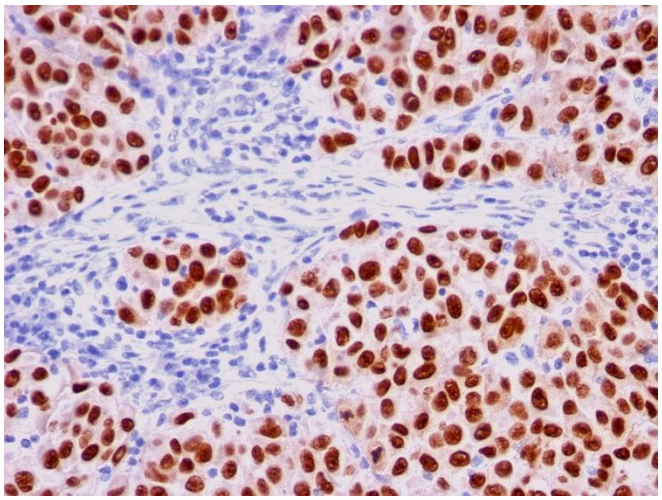
Zeta provides over 300 IVD antibodies for cancer targeted therapy and immunotherapy due to gene mutations, chromosomal translocations or gene amplifications.

SOX10 Monoclonal Antibody

IVD

Anti-mouse: clone ZM10, Cat # Z2293

"Sry-related HMG box (SOX) genes encode a key group of transcription factors. SOX-10 plays an important role in the late stage of neural crest formation, maintenance of multipotency of neural crest cells as a stem cell, and specification of derivative cell fates to schwannian and melanocytic destination. In normal tissue, SOX-10 is expressed in Schwann cells, melanocytes, and myoepithelial cells of salivary and breast glands. It is also expressed in neural crest-derived tumors, including various types of malignant melanoma, clear cell sarcoma, neuroblastoma, schwannoma, and malignant nerve sheath tumor. In comparison to other markers, SOX-10 is especially sensitive for desmoplastic and spindle cell malignant melanomas. In nonmelanocytic tumors, SOX-10 stains more carcinoid tumors, nerve sheath tumors, myoepithelial tumors, and sustentacular cells of pheochromocytomas and paragangliomas."



SOX 10 : Melanoma stained with SOX 10

All antibodies are offered in different format and size with the Suffix after the Catalog #s; “L”, “S” & “T” for Concentrated antibodies in 1.0 ml, 0.5 ml & 0.1 ml sizes and Suffix “P” for Ready To Use (RTU) in 7 ml.

- Specificity/sensitivity of SOX-10 for conventional melanoma is 97% and nonmelanocytic lesions is 0%.
- Expression of SOX-10 in different tumors: Spindle cell melanoma (100%); Desmoplastic melanoma (100%); Benign nevi (100%); PEComa (100%); Nerve sheath tumor (74%).
- Unlike Melan-A and HMB-45, SOX-10 positivity is nuclear.

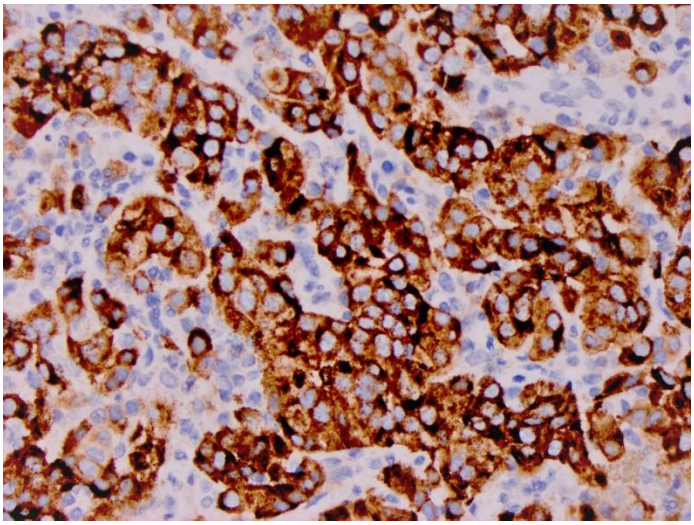
Ref: Chu, Peiguo, and Lawrence M Weiss. Modern Immunohistochemistry. 2nd ed., Cambridge, Cambridge University Press, 2014, pp.16-17.

HMB45 Monoclonal Antibody

IVD

Anti-mouse: clone HMB45, Cat # Z2088

"Cells and tumors with premelanosome differentiation are positive for HMB-45. HMB-45 reacts with primary and metastatic melanoma, and various types of nevi, but not with normal adult melanocytes. Almost all tumors of epithelial, lymphoid, glial, and mesenchymal origins are HMB-45 negative. HMB-45 is very specific (~100%) but a less sensitive (~85%) marker for conventional melanocytic tumors. Most cases of HMB-45 negative conventional and spindle cell melanomas may be positive for Melan-A, SOX10, Mitf, or tyrosinase. However, desmoplastic melanoma is rarely positive for HMB-45."



HMB 45 : Melanoma stained with HMB 45

- Specificity/sensitivity of HMB-45 for nonmelanocytic lesions is less than 1%.
- Expression of HMB-45 in different tumors: Spindle cell melanoma (14%); Desmoplastic melanoma (5%); Benign nevi (86%); PEComa (90%); Nerve sheath tumor (0%).
- HMB-45 stains cytoplasmic premelanosomes with a granular pattern.

Ref : Chu, Peiguo, and Lawrence M Weiss. Modern Immunohistochemistry. 2nd ed., Cambridge, Cambridge University Press, 2014, pp.15-16.

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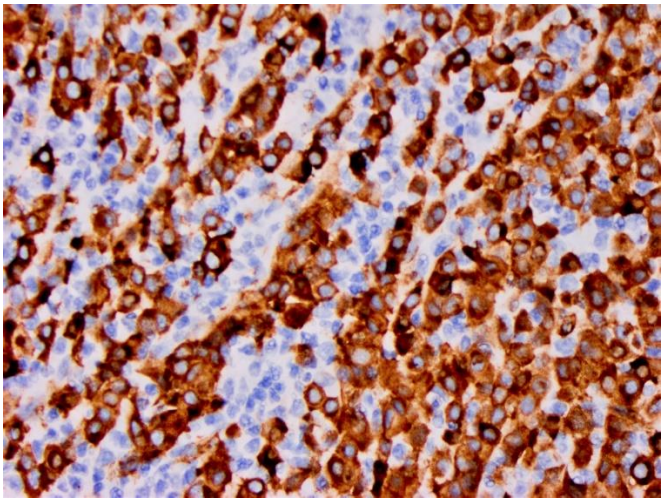
Melan A Monoclonal Antibody

IVD

Anti-mouse: clone A103, Cat # Z2052

"Melan-A is a melanocytic differentiation antigen. Since it stains both malignant and benign melanocytes, it cannot be used to distinguish between the two. All nevi, most primary melanomas, and 80% of cases of metastatic malignant melanomas are Melan-A positive. As compared to S-100, Melan-A does not stain nerve bundles, skin appendage structures, or Langerhans cells; thus, it is a good marker to demonstrate melanocytes in the skin and in sentinel lymph nodes. As compared to HMB-45, Melan-A is more specific and sensitive for melanoma. The only nonmelanocytic tumors that are positive for Melan-A are adrenal cortical tumors and some cases of angiomyolipoma/PEComa."



Melan A : Malignant melanoma stained with Melan A

- Specificity/sensitivity of Melan-A for conventional melanoma is 86% and nonmelanocytic lesions is 2%.
- Expression of Melan-A in different tumors: Spindle cell melanoma (54%); Desmoplastic melanoma (2%); Benign nevi (100%); PEComa (73%); Nerve sheath tumor (0%).
- Melan-A stains melanocytes with a granular cytoplasmic positivity.

Ref: Chu, Peiguo, and Lawrence M Weiss. Modern Immunohistochemistry. 2nd ed., Cambridge, Cambridge University Press, 2014, pp.16.

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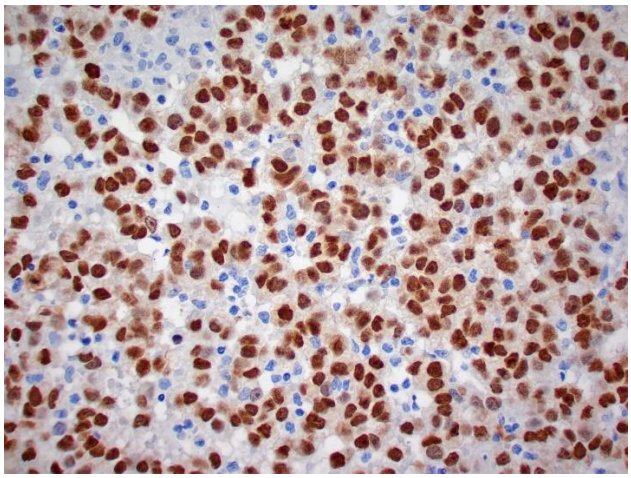
Mitf Monoclonal Antibody

IVD

Anti-mouse: clone C5/D5, Cat # Z2161

"Mitf is a nuclear protein involved in melanocyte development and regulation of melanin synthesis. Mitf immunostaining is conserved in all benign nevi, although Spitz nevi and neurotized nevi demonstrate decreased staining intensity. It has been found that Mitf immunoreactivity is seen not only in malignant and benign melanocytes but also in macrophages, fibroblasts, Schwann cells, and smooth muscle cells of various sites, and in tumors derived from these cells. Less than 20% of cases of spindle cell/desmoplastic melanomas express Mitf. Similar to HMB-45 and Melan-A, angiomyolipomas/PEComas are also positive for Mitf, with a focal staining pattern."



MiTF1 : Melanoma stained with MiTF1

- Specificity/sensitivity of Mitf for conventional melanoma is 83% and nonmelanocytic lesions is 9%.
- Expression of Mitf in different tumors: Spindle cell melanoma (71%); Desmoplastic melanoma (13%); Benign nevi (100%); PEComa (70%); Nerve sheath tumor (0%).

Ref: ***Chu, Peiguo, and Lawrence M Weiss. Modern Immunohistochemistry. 2nd ed., Cambridge, Cambridge University Press, 2014, pp.16-18.***

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