

# Derm Cancer Markers



Assessment, Diagnosis, Prognosis  
and Treatment Determination  
of Melanoma

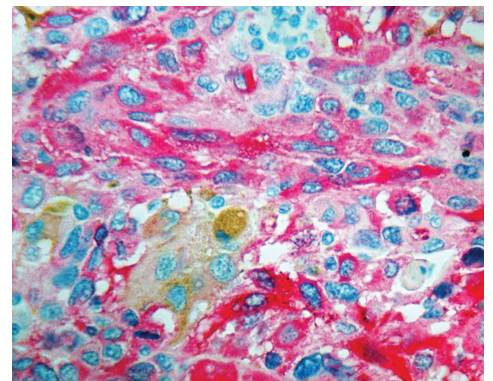


## Novel Antibodies for Skin Cancer

There are three major types of skin cancer — basal cell carcinoma (80% of skin cancers), squamous cell carcinoma (16%) and melanoma (4%). The incidence of both non-melanoma and melanoma skin cancers has been increasing over the past decades. From 1970 to 2009, the incidence of melanoma increased by 800 percent among young women and 400 percent among young men. Currently, between 2 and 3 million non-melanoma skin cancers and 132,000 melanoma skin cancers occur globally each year. In US, more than 1 million new cases of skin cancers and an estimated 76,690 new cases of invasive melanoma will be diagnosed, and an estimated 9,480 people will die of melanoma in 2013.

Staining with a panel of eight antibodies can be used to identify melanoma and differentiate it from squamous cell carcinoma: CD68, Factor XIIIa, CEA, S-100, melanoma cocktail (HMB-45, MART-1/Melan-A, tyrosinase) and Pan-CK.

DBS' comprehensive dermatologic panel includes novel rabbit monoclonal and mouse monoclonal antibodies. These antibodies ensure sensitivity and specificity of IHC tests. As a result, pathologists and oncologists can have rapid, precise results and an accurate diagnosis to determine effective treatment for their patients.



*Human melanoma stained with anti-MART-1 using PermaRed/AP AutoPlus*

## DBS Antibodies

Name	Cat. No.	Clone	Clinical Utility
a-1-Antichymotrypsin (ACT)	RP 047 PDR 023	Polyclonal (R)	For defining the presence of $\alpha$ -1-Antichymotrypsin in histiocytes and tumors derived from them, and differentiating eosinophilic granuloma and malignant histiocytosis (heterogeneous intensity and distribution) and fibrous histiocytomas (diffuse homogeneous)
CEA	Mob 008 PDM 005	Col-1 (M)	Clinically important marker for adenocarcinomas in the gastrointestinal tract, including colonic and pancreatic carcinomas. Used for characterization of secretory meningiomas and identification of medullary carcinoma of the thyroid
CD163	Mob 460	10D6 (M)	Useful in identifying cells of monocyte/macrophage lineage in normal and neoplastic conditions, and shows more specific than CD 68
CD3	RMAB 048 RMPD 048	EP41 (R)	Useful early detectable marker for peripheral T cells, thymocytes, and activated natural killer cells, and T-cell neoplasms
CD31	Mob 034	JC/70A (M)	Highly specific and sensitive marker for vascular endothelial cells. Used for identification of endothelial cells, and benign and malignant vascular disorders such as hemangiosarcoma, kaposi sarcoma and angiosarcomas
CD34	Mob 098 PDM 050	QBEND/10 (M)	Used to measure angiogenesis in many types of tumors, which reportedly predicts tumor recurrence, and to differentiate dermatofibrosarcoma protuberans from fibrous histiocytoma
CD63	Mob 301	NK-1/C3 (M)	Useful in identifying malignant melanoma and differentiating renal oncocytomas (RO) from eosinophilic renal cell carcinomas (eRCC)
CD68	Mob 167 PDM 066	KP1 (M)	For identification of macrophages, other members of the mononuclear phagocyte lineage, and neoplasm of myeloid and macrophage/monocyte origin
CD99	Mob 262 PDM 106	HO36-1.1 (M)	Used as part of a panel to aid in the identification of Ewing's sarcoma and related peripheral neuroectodermal tumors, and in differentiating spitzoid melanomas from spitz nevi
Cytokeratin Pan	Mob 356	Lu-5 (M)	Useful in the identification of neoplasm of epithelial origin
Cytokeratin	Mob 190 PDM 072	AE1+AE3 (M)	Clinically important marker for classifying carcinomas (tumors of epithelial origin) and for distinguishing carcinomas from malignant tumors of non epithelial origin such as lymphomas melanomas, and sarcomas
Cytokeratin 14	Mob 186 PDM 138	LL002 (M)	Useful in differentiating squamous cell carcinomas from other epithelial tumor and separating oncocytic tumors of the kidney from its renal mimics, as well as in determining metaplastic carcinomas of the breast
Cytokeratin 8 & 18	Mob 189 PDM 070	5D3 (M)	Useful for the identification of adenocarcinomas and some squamous cell carcinomas. Use in conjunction with HMW CK to rule out squamous cell carcinoma
Cytokeratin HMW	Mob 059 PDM 074	34bE12 (M)	Labels squamous, ductal and complex epithelia, and is useful in the differentiation of benign prostate glands from prostatic adenocarcinoma and the classification of neoplastic tissue as carcinoma or epithelial origin
Desmin	Mob 060 PDM 006	D33 (M)	For identification of smooth and striated muscle cells and reactive mesothelial cells, tumors of muscle origin like leiomyoma and rhabdomyosarcoma

R—Rabbit M—Mouse

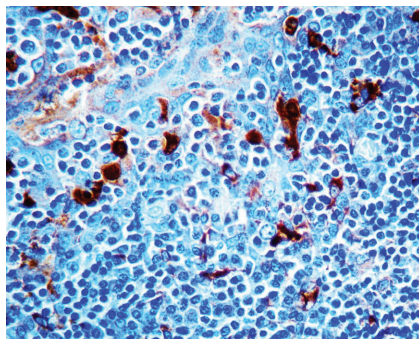
Name	Cat. No.	Clone	Clinical Utility
ESA	Mob 406 PDM 131	Ber-EP4 (M)	For differential diagnosis of adenocarcinoma vs. malignant mesothelioma and basal cell carcinoma vs. squamous cell carcinoma of the skin
Factor VIII Related Antigen/VWF	Mob 196 PDM 019	F8/86 (M)	Used to identify tumors derived from megakaryocytes
Factor XIIIa	Mob 321 PDM 141	AC-1A1 (M)	Used with CD34 to differentiate between dermatofibroma and dermatofibrosarcoma protuberans
HHV-8	Mob 395	LN53 (M)	Useful for differentiating between Kaposi sarcoma and other vascular and nonvascular spindle cell lesions such as spindle cell hemangioma, dermatofibrosarcoma protuberans and spindle melanoma, which do not express HHV-8 latent nuclear antigen-1
IgA	RP 020 PDR 017	Polyclonal (R)	For identification of leukemias, plasmacytomas and B-cell lineage derived Hodgkin's lymphomas
IgG	RP 023 PDR 018	Polyclonal (R)	For identification of plasma cells and related lymphoid cells containing IgG, and for IgG plasma cell neoplasia
IgM	Mob 074 PDM 053	R1/69 (M)	For identification of plasma cells and lymphoid cells containing IgM. It is also used for the classification of IgM subtype for B-cell neoplasia.
Ki67	RMAB 004 RMPD 004	SP6 (R)	Used to grade proliferation rates of tumors
MART-1/melan A	RMAB 044 RMPD 044	EP43 (R)	For identification of melanoma and expressed by various tumors such as granulosa cell tumor, adrenocortical carcinoma and angiomyolipoma
Melanoma Cocktail	Mob 428 PDM 146	HMB45,T311, A103 (M)	Used as the pan melanoma screener, and valuable markers for melanoma metastasis in sentinel lymph nodes
Melanoma	Mob 079 PDM 011	HMB45 (M)	For identification of melanocytes with immature melanosome formation in normal skin, nevus and melanoma tissue
MiTF	Mob 462 PDM 168	D5 (M)	Used to identify the majority of primary and metastatic epithelioid malignant melanomas as well as in normal melanocytes, benign nevi and dysplastic nevi
Neurofilament	Mob 080	2F11 (M)	Useful for the identification of tumors with neuronal differentiation
p21	Mob 280	DCS-60.2 (M)	p21WAF1/Cip1 appears to mediate several of the growth-regulatory functions of p53, its expression would be predicted to reflect the functional status of p53 more precisely than p53 accumulation
p53	RMAB 016 RMPD 016	SP5 (R)	Expressed in many malignancies of the colon, stomach, bladder, breast, lung, melanomas and soft tissue sarcomas, and immunostaining closely correlates with the presence of a mutation
S100 Protein	Mob 111 PDM 088	SH-B1 (M)	Expressed in Schwannomas, ependymomas, astroglomas, and almost all benign and malignant melanomas and their metastases. Staining with a panel of four antibodies helps classify tumors as carcinoma, melanoma, lymphoma or sarcoma: Pan-CK, S100, CD45, and vimentin
Synaptophysin	RMAB 018 RMPD 018	SP11 (R)	For identification of a wide spectrum of neuroendocrine neoplasms and tumors with neuroendocrine differentiation such as adrenal medulla, carotid body, skin, pituitary, thyroid, lung, pancreas and gastrointestinal mucosa and Merkel cell carcinoma
Tyrosinase	Mob 290 PDM 150	T311 (M)	Useful marker for the presence of melanocytes and melanosomes. As a marker of melanocytic lineage, tyrosinase is localized to melanocytes which can be found on the dermal/epidermal junction of normal skin

R—Rabbit M—Mouse

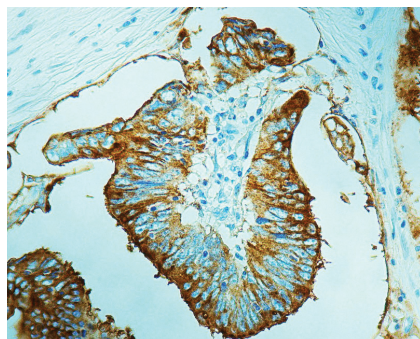
## DBS Antibodies

Name	Cat. No.	Clone	Clinical Utility
Vimentin	RMAB 019 RMPD 019	SP20 (R)	Useful for the identification of cells of mesenchymal origin in normal and neoplastic tissues

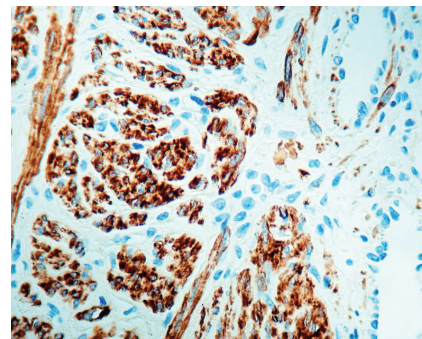
R—Rabbit M—Mouse



*Human tonsil stained with anti-Alpha-1  
Antichymotripsin using DAB*



*Human colon stained with anti-CEA using DAB*



*Human uterus stained with anti-Desmin using  
DAB*

### Polymer Detection Systems:

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### PolyVue Plus™ HRP Mouse/Rabbit HRP/DAB Kit:

Size (100 ul/test)	100 Tests	1000 Tests
Catalog Number	PVP 100D	PVP 1000D

### UnoVue Plus™ Mouse/Rabbit AP/PermaRed Kit:


Size (100 ul/test)	100 Tests	1000 Tests
Catalog Number	UVP-100AR	UVP-1000AR



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