VENTANA®

Roche

Dermatopathology Solutions

Driving diagnostic certainty
for life-changing decisions
in pathology

Skin Cancer

The majority of skin diseases are typically diagnosed using Hematoxylin and Eosin (H&E) staining of a biopsy. At times other staining techniques can be used to diagnose and differentiate the range of diseases that can be seen in the skin. To address these needs, Roche offers a comprehensive dermatopathology menu, which includes immunohistochemistry (IHC), special stains, and a fully automated direct immunofluorescence staining panel featuring FITC-labeled antibodies, providing precise and reliable diagnostic solutions.

Skin Cancer facts

Skin cancer is the most common of all cancers worldwide. In the U.S., more people are diagnosed with skin cancer than all cancers combined. Although more than two people die of the disease every hour, it is highly treatable if diagnosed early.[1]

Basal cell carcinoma and Squamous cell carcinoma are the most common types of skin cancer resulting in over 5 million diagnosed cases every year. These cancers can produce substantial destruction along with disfigurement but generally have a good prognosis due to low rates of metastasis.[2]

Melanoma accounts for only about 1% of skin cancers but causes a large majority of skin cancer deaths due to higher rates of metastasis. In the U.S. there will be an estimated 100,640 new cases and 8,290 deaths in 2024.[3]

Dermatopathology panel

Exceptional antibodies
Confidence and convenience

Pre-diluted, optimized antibodies come ready to use in dispensers that are specially designed for use on the VENTANA BenchMark IHC/ISH series of instruments. Subtyping with IHC biomarkers can play a crucial role in confirming identification and differentiation.

Comprehensive melanoma panel
- MART-1/melan A
- SOX-10
- PRAME
- HMB45 (Melanosome)
- S100
- Tyrosinase
- NGFR

Fully automated, direct immunoflourescence staining
For autoimmune disorders and other inflammatory processes Roche offers FITC - labeled antibodies against: C3, fibrinogen, IgA, IgG and IgM

Additional derm-related markers to meet a broad range of diagnostic needs including:
- Squamous cell vs. basal cell carcinoma
- Cutaneous lymphomas
- Dermatofibrosarcoma protuberans (DFSP)
- Merkel cell carcinoma
- Sebaceous carcinoma

Comprehensive melanoma panel

Melanoma is a malignancy of melanocytes and histology is the gold standard for distinguishing malignant cells from benign cells. IHC in this context is useful to establish melanocytic lineage (melanoma), versus other lineages (carcinoma, sarcoma, B- or T-cell lymphoma).

MART-1 / melan A
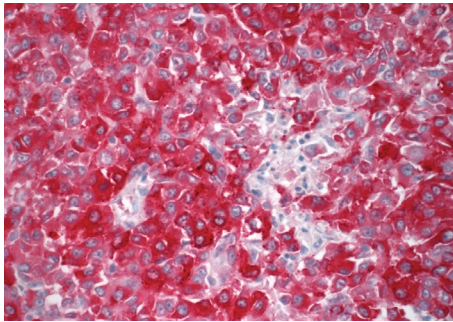
The anti-MART-1/melan A protein has 118 amino acids with a molecular weight of 13 kDa and is a relatively specific melanosomal differentiation antigen. It is expressed by normal melanocytes, benign nevi, and melanomas, and is therefore considered to be a marker of melanocyte differentiation.

CONFIRM anti-MART 1/melan A (A103) Mouse Monoclonal Primary Antibody is a mouse monoclonal antibody (IgG1) directed against melan A, positive staining aids in the diagnosis of melanoma.[4]

SOX-10 (SP267)
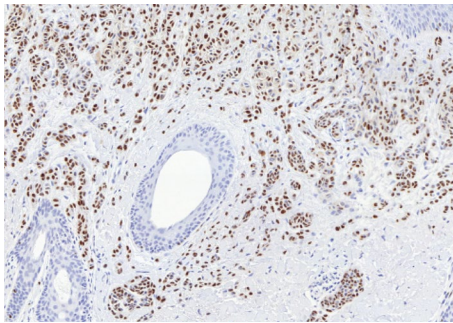
Sry-related HMG-BOX gene 10, SOX-10, is a transcription factor involved in neural crest and peripheral nervous system development, acts as a nucleocytoplasmic shuttle protein and is known to be crucial in the maintenance of Schwann cells and melanocytes. SOX10 is a highly sensitive marker for melanocytes and the diagnosis of melanoma, and can also support the diagnosis of desmoplastic subtypes of melanoma. In normal tissues, SOX-10 is expressed in melanocytes, and myoepithelial cells.

SOX-10 (SP267) Rabbit Monoclonal Primary Antibody may be used as the primary antibody for immunohistochemical staining of formalin-fixed, paraffin-embedded tissue sections.[5]

PRAME
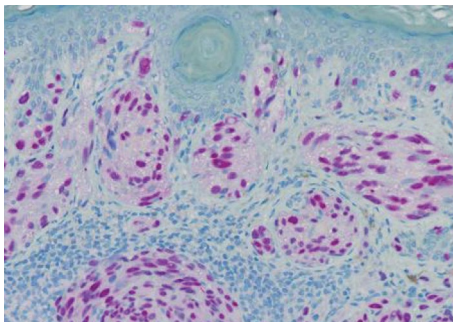
PRAME is a transcriptional regulator involved in germline development and gametogenesis and is generally overexpressed in melanomas (i.e. malignant melanocytic tumors). PRAME is typically not expressed in normal human tissues, with the exception of testes, though limited expression in ovary, placenta, adrenal gland, and endometrium has been observed. When immunoreactivity is diffuse in 70% or greater of the lesion, PRAME is very sensitive and specific for the diagnosis of melanoma.
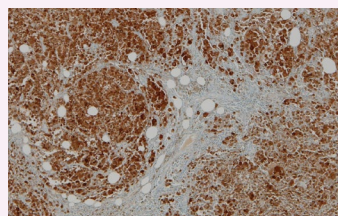
The detection of PRAME by IHC with anti-PRAME (EPR20330) antibody may be used as an aid to differentiate between benign and malignant melanocytic neoplasms, complementing findings from routinely used H&E and ancillary IHC panels.[6]
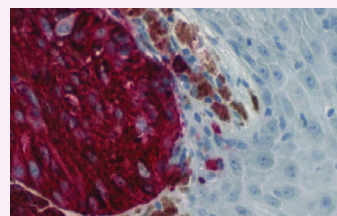
Additional melanocytic markers
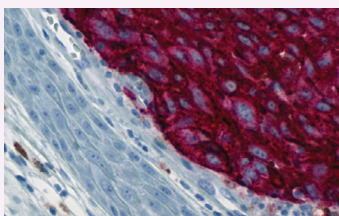
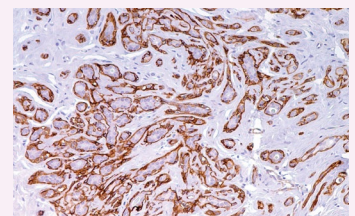**HMB45**
Melanoma, with area showing normal melanoctyes

S100
Melanoma

Tyrosinase
Melanoma, with area showing normal melanoctyes
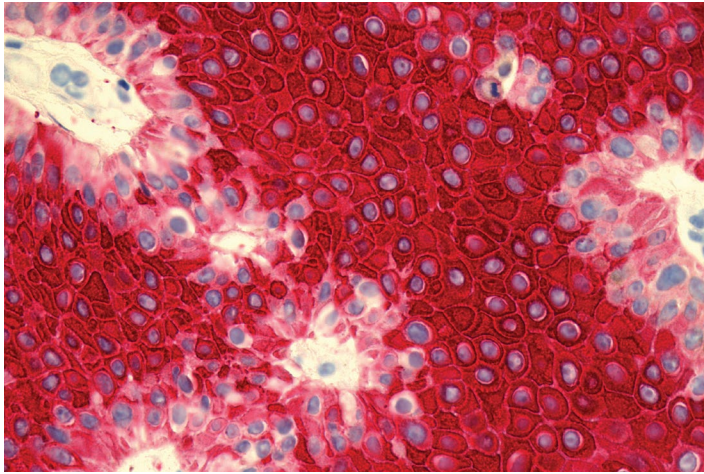

NGFR
Melanoma

Detection systems

Sensitive and specific detection
in red or brown chromogens

ultraView Universal Alkaline Phosphatase Red Detection Kit and ultraView Universal DAB Detection Kit

*ultra*View detection systems are leading-edge multimer-technology based kits suitable for use with both mouse and rabbit primary antibodies. *ultra*View chemistry provides crisp morphology, enabling the sensitive and specific visualisation of the targeted antigen. The kits are biotin-free, thus eliminating non-specific staining caused by endogenous biotin.
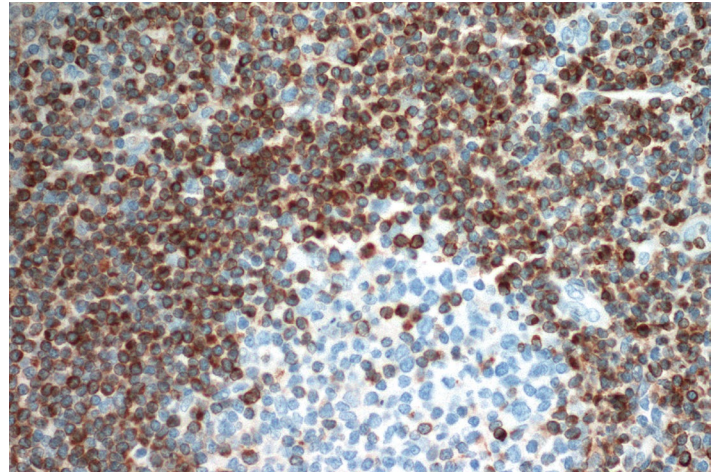
OptiView DAB IHC Detection Chemistry

By increasing the numbers of HRP enzymes at each primary antibody site, OptiView DAB IHC detection provides unparalleled signal intensity, empowering you to achieve the level of intensity you desire, even for low-expressing antigens. Our synthetic, non-endogenous hapten system virtually eliminates background even as signal intensity increases.

Flexible dual chromogen staining
Endless possibilities

• Greater context for diagnosis with brown and red chromogens

• Simpler, faster interpretation

• Compatible with any species combination of mouse and rabbit primary antibodies (mouse-mouse, rabbit-rabbit, rabbit-mouse)
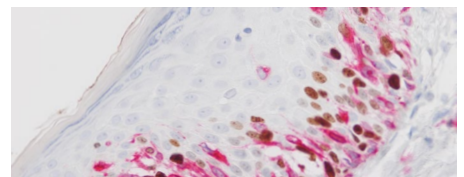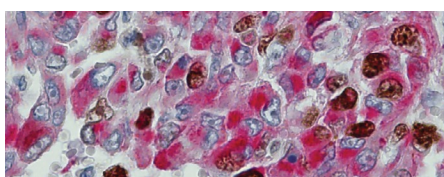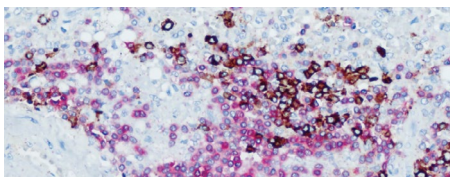
Single stain — Dual stain — Single stain
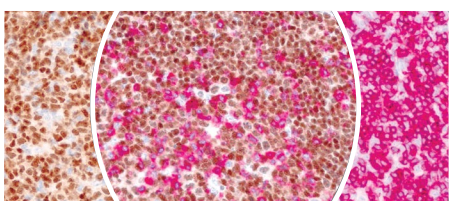
PAX-5 (790-4420) and CD3 (790-4341), tonsil 30x
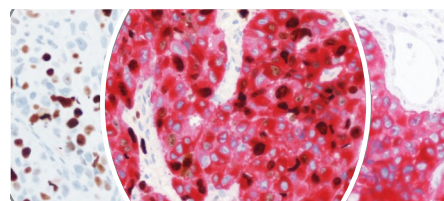
Ki-67 (790-4286) and MART-1/melan-A (790-2990), skin 30x

CD45 (760-2505) and MART-1/melan-A (790-2990), skin 30x

Menu Offering

Melanocytic markers

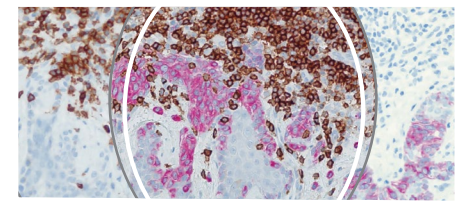| Product	Catalog number	Ordering code
MART-1/melan A (A103) Mouse Monoclonal Primary Antibody, CONFIRM	05278350001	790-2990
Melanoma Triple Cocktail (HMB45+A103+T311) Primary Antibody	06527787001	790-4677
Melanosome (HMB45) Mouse Monoclonal Primary Antibody, CONFIRM	05479282001	790-4366
Anti-PRAME (EPR20330) Rabbit Monoclonal Primary Antibody	09592237001 (50 Tests)	790-7149
Anti-PRAME (EPR20330) Rabbit Monoclonal Primary Antibody	09592245001 (250 Tests)	790-7150
S100 (4C4.9) Primary Antibody, CONFIRM	05278104001	790-2914
S100 (Polyclonal) Primary Antibody, CONFIRM	05267072001	760-2523
SOX-10 (SP267) Rabbit Monoclonal Primary Antibody	07560389001	760-4968
Tyrosinase (T311) Mouse Monoclonal Primary Antibody, CONFIRM	05479347001	790-4365

Other derm related markers

Product	Catalog number	Ordering code
α-1-Antitrypsin Rabbit Polyclonal Primary Antibody	05267200001	760-2605
Actin, Muscle Specific (HHF35)	05267161001	760-2601
Actin, Smooth Muscle (1A4) Mouse Monoclonal Antibody	05268303001	760-2833
CD1a (EP3622) Rabbit Monoclonal Primary Antibody	06419160001	760-4525
CD3 (2GV6) Rabbit Monoclonal Primary Antibody, CONFIRM	05278422001	790-4341
CD31 (JC70) Mouse Monoclonal Primary Antibody	05463475001	760-4378
CD34 (QBEnd/10) Primary Antibody, CONFIRM	05278210001	790-2927
Factor VIII Related Antigen	05267528001	760-2642
CD68 (KP-1) Primary Antibody, CONFIRM	05278252001	790-2931
Keratin (34βE12) Mouse Monoclonal Primary Antibody, CONFIRM	05479266001	790-4373
IgG Rabbit Polyclonal Antibody	05267633001	760-2653
IgM Rabbit Polyclonal Antibody	05267641001	760-2654
Cytokeratin 8 & 18 (B22.1 & B23.1) Mouse Monoclonal Primary Antibody	05269776001	760-4344
Nerve Growth Factor Receptor (NGFR) (MRQ-21)	05463599001	760-4391
Pan Keratin (AE1/AE3/PCK26) Primary Antibody	05267145001 (50 tests)	760-2595
Pan Keratin (AE1/AE3/PCK26) Primary Antibody	05266840001 (250 tests)	760-2135

Other derm related markers continued

Product	Catalog number	Ordering code
Desmin (DE-R-11) Primary Antibody, CONFIRM	05267005001	760-2513
EMA (E29) Mouse Monoclonal Primary Antibody, CONFIRM	05878900001	790-4463
Epithelial Specific Antigen/Ep-CAM (Ber-EP4) Mouse Monoclonal Primary Antibody	05435676001	760-4383
Factor XIIIa (EP3372) Rabbit Monoclonal Primary Antibody	05922470001	760-4441
Factor XIIIa (AC-1A1) Mouse Monoclonal Antibody	05435692001	760-4384
Ki-67 (30-9) Rabbit Monoclonal Primary Antibody, CONFIRM	05278384001	790-4286
NSE (MRQ-55) Mouse Monoclonal Primary Antibody	06648568001	760-2662
Neurofilament (2F11) Mouse Monoclonal Antibody	05267714001	760-2661
Phosphohistone H3 (PHH3)	06433405001	760-4591
Synaptophysin (SP11) Rabbit Monoclonal Primary Antibody, CONFIRM	05479304001	790-4407
Synaptophysin (MRQ-40) Rabbit Monoclonal Antibody	06433324001	760-4595
Tryptase (G3) Mouse Monoclonal Primary Antibody	05269393001	760-4276
Vimentin (V9) Primary Antibody, CONFIRM	05278139001	790-2917

Immunofluorescence markers

Product	Catalog number	Ordering code
FITC IgG Primary Antibody	05267919001	760-2680
FITC IgA Primary Antibody	05267927001	760-2681
FITC IgM Primary Antibody	05267935001	760-2682
FITC Fibrinogen Primary Antibody	05267960001	760-2685
FITC C3 Primary Antibody	05267978001	760-2686
FITC C1q Primary Antibody	05267994001	760-2688
FITC Kappa Primary Antibody	05267943001	760-2683

Menu Offering

Multimer technology, biotin-free detection systems

Product	Catalog number	Ordering code
*ultra*View Universal DAB Detection Kit	05269806001	760-500
*ultra*View Universal Alkaline Phosphatase Red Detection Kit	05269814001	760-501
OptiView DAB IHC Detection Kit (250 tests)	06396500001	760-700
OptiView Amplification Kit (50 tests)	06396518001	760-099

REFERENCES
1. Skin cancer facts & statistics. The Skin Cancer Foundation. (2024, February 6). https://www.skincancer.org/skin-cancer-information/skin-cancer-facts/. Accessed September 3, 2024.
2. Ferry AM, Sarrami SM, Hollier PC, Gerich CF, Thornton JF. Treatment of Non-melanoma Skin Cancers in the Absence of Mohs Micrographic Surgery. Plast Reconstr Surg Glob Open. 2020 Dec 22;8(12):e3300. doi: 10.1097/GOX.0000000000003300. PMID: 33425610; PMCID: PMC7787325.
3. Melanoma skin cancer statistics. Melanoma Skin Cancer Statistics | American Cancer Society. (2024b, January 17). https://www.cancer.org/cancer/types/melanoma-skin-cancer/about/key-statistics.html. Accessed September 3, 2024.
4. MART-1/melan A (A103) Method Sheet)"
5. SOX-10 (SP267) Method Sheet.
6. Anti-PRAME (EPR20330) Method Sheet.