

Melanoma Marker (NKI/beteb): sc-52704

BACKGROUND

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. It underlies the majority of skin cancer-related deaths. Melanoma originates in melanocytes, the cells which produce the pigment melanin that colors our skin, hair and eyes and is heavily concentrated in most moles. Epidemiologic studies suggest that exposure to ultraviolet radiation is one of the major contributors to the development of melanoma. The four most common types of melanoma in the skin are: superficial spreading melanomas, which evolve from a precursor lesion (usually a dysplastic nevus), nodular melanomas, the most aggressive form, acral lentiginous melanomas, which are seen on the palms, soles and under the nails, and Lentigo malignas, which consist of malignant cells but do not show invasive growth.

REFERENCES

1. van Duinen, S.G., et al. 1984. Immunohistochemical and histochemical tools in the diagnosis of amelanotic melanoma. *Cancer* 53: 1566-1573.
2. Bonetti, F., et al. 1989. Breast carcinoma with positive results for Melanoma Marker (HMB-45). HMB-45 immunoreactivity in normal and neoplastic breast. *Am. J. Clin. Pathol.* 92: 491-495.
3. Lin, C.S. 1990. Melanoma Marker and breast carcinoma. *Am. J. Clin. Pathol.* 94: 669-670.
4. Fernando, S.S., et al. 1994. Immunohistochemical analysis of cutaneous malignant melanoma: comparison of S-100 protein, HMB-45 monoclonal antibody and NKI/C3 monoclonal antibody. *Pathology* 26: 16-19.
5. Salazar-Onfray, F., et al. 2002. Tissue distribution and differential expression of melanocortin 1 receptor, a malignant Melanoma Marker. *Br. J. Cancer* 87: 414-422.
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7. Guerquin-Kern, J.L., et al. 2004. Ultra-structural cell distribution of the Melanoma Marker iodobenzamide: improved potentiality of SIMS imaging in life sciences. *Biomed. Eng. Online* 3: 10.
8. Balch, C.M., et al. 2006. Sentinel-node biopsy in melanoma. *N. Engl. J. Med.* 355: 1370-1371.
9. Dunbar, R., et al. 2006. Melanoma control: few answers, many questions. *N. Z. Med. J.* 119: U2172.

SOURCE

Melanoma Marker (NKI/beteb) is a mouse monoclonal antibody raised against Melanoma Marker of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

Melanoma Marker (NKI/beteb) is recommended for detection of Melanoma of human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
 1) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 2) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

SELECT PRODUCT CITATIONS

1. Castaneda-Cazares, J.P., et al. 2013. Topical niacinamide 4% and desonide 0.05% for treatment of axillary hyperpigmentation: a randomized, double-blind, placebo-controlled study. *Clin. Cosmet. Investig. Dermatol.* 6: 29-36.
2. Byun, J.W., et al. 2016. Role of fibroblast-derived factors in the pathogenesis of melasma. *Clin. Exp. Dermatol.* 41: 601-609.
3. Shin, J., et al. 2016. Involvement of T cells in early evolving segmental vitiligo. *Clin. Exp. Dermatol.* 41: 671-674.
4. Miyashita, H., et al. 2017. Long-term homeostasis and wound healing in an *in vitro* epithelial stem cell niche model. *Sci. Rep.* 7: 43557.
5. Singh, S.K., et al. 2017. E-cadherin mediates ultraviolet radiation- and calcium-induced melanin transfer in human skin cells. *Exp. Dermatol.* 26: 1125-1133.
6. Koike, S., et al. 2018. Toll-like receptors 2 and 3 enhance melanogenesis and melanosome transport in human melanocytes. *Pigment Cell Melanoma Res.* 31: 570-584.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.



See **Melanoma Marker (HMB45): sc-59305** for Melanoma Marker antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor[®] 488, 546, 594, 647, 680 and 790.