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Tyrosinase (Melanoma Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone OCA1/812]
Catalog # AH12476

Product Information

Application	IF, FC, E, IHC-P
Primary Accession	P14679
Other Accession	7299, 503555
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG2a, kappa
Clone Names	OCA1/812
Calculated MW	60393

Additional Information

Gene ID	7299
Other Names	Tyrosinase, 1.14.18.1, LB24-AB, Monophenol monooxygenase, SK29-AB, Tumor rejection antigen AB, TYR
Application Note	IF~~1:50~200 FC~~1:10~50 E~~N/A IHC-P~~N/A
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	Tyrosinase (Melanoma Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TYR (HGNC:12442)
Function	This is a copper-containing oxidase that functions in the formation of pigments such as melanins and other polyphenolic compounds. Catalyzes the initial and rate limiting step in the cascade of reactions leading to melanin production from tyrosine (By similarity). In addition to hydroxylating tyrosine to DOPA (3,4- dihydroxyphenylalanine), also catalyzes the oxidation of DOPA to DOPA- quinone, and possibly the oxidation of DHI (5,6-dihydroxyindole) to indole-5,6 quinone (PubMed:28661582).
Cellular Location	Melanosome membrane; Single-pass type I membrane protein. Melanosome {ECO:0000250|UniProtKB:P11344}. Note=Proper trafficking to melanosome is regulated by SGSM2, ANKRD27, RAB9A, RAB32 and RAB38 {ECO:0000250|UniProtKB:P11344}

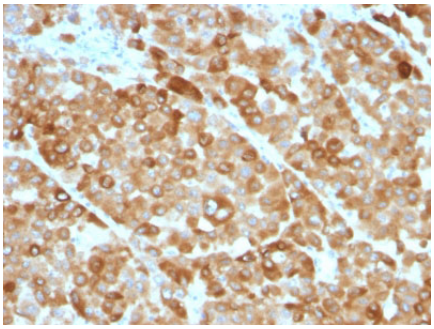
Background

Recognizes a cluster of proteins between 70-80kDa, identified as tyrosinase. Occasionally a minor band at 55kDa is also detected. This MAb shows no cross-reaction with MAGE-1 and tyrosinase-related protein 1, TRP-1/gp75. Tyrosinase is a copper-containing metalloglycoprotein that catalyzes several steps in the melanin pigment biosynthetic pathway; the hydroxylation of tyrosine to L-3,4-dihydroxy-phenylalanine (dopa), and the subsequent oxidation of dopa to dopaquinone. Mutations of the tyrosinase gene occur in various forms of albinism. Tyrosinase is one of the targets for cytotoxic T-cell recognition in melanoma patients. Staining of melanomas with this MAb shows tyrosinase in melanotic as well as amelanotic variants. This MAb is a useful marker for melanocytes and melanomas.

References

Korner, A., et al. 1982. Mammalian tyrosinase catalyzes three reactions in the biosynthesis of melanin. Science 217: 1163-1165. | Hearing, V.J., et al. 1987. Mammalian tyrosinase—the critical regulatory control point in melanocyte pigmentation. Int. J. Biochem. 19: 1141-1147

Images



Formalin-fixed, paraffin-embedded melanoma stained with Tyrosinase Monoclonal Antibody (OCA1/812).