

Tyrosinase (Melanoma Marker) Antibody - With BSA and Azide Mouse Monoclonal Antibody [Clone OCA1/812] Catalog # AH12476

Specification

Tyrosinase (Melanoma Marker) Antibody - With BSA and Azide - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Calculated MW IHC-P, IF, FC, E <u>P14679</u> 7299, 503555 Human Mouse Monoclonal Mouse / IgG2a, kappa 70-80kDa KDa

Tyrosinase (Melanoma Marker) Antibody - With BSA and Azide - 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 IHC-P~~N/A<br \>IF~~1:50~200<br \>FC~~1:10~50<br \>E~~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.

Tyrosinase (Melanoma Marker) Antibody - With BSA and Azide - 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 DOPAquinone, 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}

Tyrosinase (Melanoma Marker) Antibody - With BSA and Azide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

Tyrosinase (Melanoma Marker) Antibody - With BSA and Azide - Images



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

Tyrosinase (Melanoma Marker) Antibody - With BSA and Azide - 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.

Tyrosinase (Melanoma Marker) Antibody - With BSA and Azide - 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