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Tyrosinase-Related Protein-1 (TYRP-1) (Melanoma Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone TA99 + TYRP1/807]
Catalog # AH12487

Product Information

Application	WB, IF, FC, IHC-F
Primary Accession	P17643
Other Accession	7306, 270279
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG's
Clone Names	TA99 + TYRP1/807
Calculated MW	60724

Additional Information

Gene ID	7306
Other Names	5, 6-dihydroxyindole-2-carboxylic acid oxidase, DHICA oxidase, 1.14.18.-, Catalase B, Glycoprotein 75, Melanoma antigen gp75, Tyrosinase-related protein 1, TRP, TRP-1, TRP1, TYRP1, CAS2, TYRP, TYRRP
Application Note	WB~~1:1000 IF~~1:50~200 FC~~1:10~50 IHC-F~~N/A
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	Tyrosinase-Related Protein-1 (TYRP-1) (Melanoma Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TYRP1 (HGNC:12450)
Function	Plays a role in melanin biosynthesis (PubMed: 16704458, PubMed:22556244, PubMed:23504663). Catalyzes the oxidation of 5,6-dihydroxyindole-2-carboxylic acid (DHICA) into indole-5,6-quinone-2-carboxylic acid in the presence of bound Cu(2+) ions, but not in the presence of Zn(2+) (PubMed:28661582). May regulate or influence the type of melanin synthesized (PubMed:16704458, PubMed:22556244). Also to a lower extent, capable of hydroxylating tyrosine and producing melanin (By similarity).
Cellular Location	Melanosome membrane {ECO:0000250|UniProtKB:P07147}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:P07147}. Note=Located to

	mature stage III and IV melanosomes and apposed endosomal tubular membranes. Transported to pigmented melanosomes by the BLOC-1 complex. Proper trafficking to melanosome is regulated by SGSM2, ANKRD27, RAB9A, RAB32 and RAB38 {ECO:0000250|UniProtKB:P07147}
Tissue Location	Pigment cells.

Background

It reacts with a 75kDa melanocyte-specific gene product, identified as Tyrosinase-related protein-1 (TRP-1). It is involved in melanin synthesis. TRP1 is present on the melanosomal membranes of melanoma, normal melanocytes and nevi. Recent evidence suggests that TRP-1 is involved in maintaining stability of tyrosinase protein and modulating its catalytic activity. TRP-1 is also involved in maintenance of melanosome ultrastructure and affects melanocyte proliferation and cell death.

References

FASEB J. 2010;24(5):1616-29. | Clin Cancer Res. 2007;13:566-75. | Orlow, S.J., et al. 1994. High-molecular-weight forms of tyrosinase and the tyrosinase-related proteins: evidence for a melanogenic complex. J. Invest. Dermatol. 103: 196-201