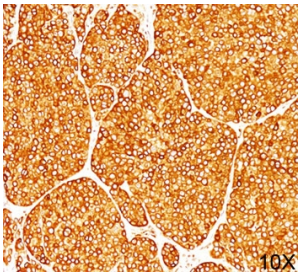
Tyrosinase Antibody T311 / TYR Antibody [clone T311] (V2290)

Catalog No.	Formulation	Size
V2290-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2290-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2290SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2290IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

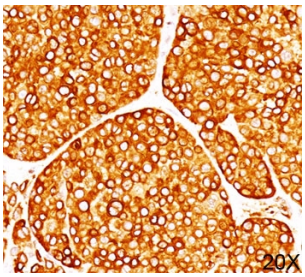
Citations (12)

Bulk quote request

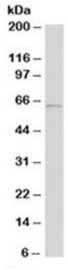
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	T311
Purity	Protein G affinity chromatography
Gene ID	7299
Localization	Cytoplasmic
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This Tyrosinase Antibody T311 / TYR Antibody is available for research use only.



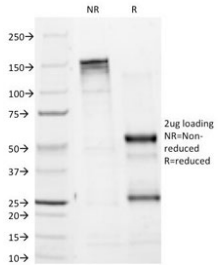
Tyrosinase Antibody Human Melanoma IHC. Immunohistochemical staining of human melanoma tissue using Tyrosinase antibody (clone T311) demonstrated strong, diffuse cytoplasmic staining in malignant melanocytic cells, consistent with the abundant expression of tyrosinase in melanin-producing tumors. The widespread immunoreactivity highlights the value of TYR as a marker of melanocytic differentiation and melanoma. This Tyrosinase Antibody T311, also called a TYR Antibody, has been cited in more than 300 scientific publications and is well suited for investigations of melanocyte biology, melanin biosynthesis, pigmentation disorders, and melanoma research.



Tyrosinase Antibody Human Melanoma IHC. Immunohistochemical staining of human melanoma tissue using Tyrosinase antibody (clone T311) demonstrated strong, diffuse cytoplasmic staining in malignant melanocytic cells at higher magnification, highlighting the characteristic expression of tyrosinase in melanin-producing tumors. The intense and uniform staining pattern supports the use of TYR as a reliable marker of melanocytic differentiation in melanoma. This Tyrosinase Antibody T311, also called a TYR Antibody, has been cited in more than 300 scientific publications and is well suited for investigations of melanocyte biology, melanin biosynthesis, pigmentation disorders, and melanoma research.



Tyrosinase Antibody Human Melanoma Cell WB. Western blot testing of human A375 melanoma cell lysate using Tyrosinase antibody (clone T311) detected a prominent band at approximately 66 kDa, consistent with tyrosinase. TYR is extensively N-linked glycosylated during maturation within the endoplasmic reticulum and Golgi apparatus, resulting in multiple reported molecular forms that typically migrate between approximately 60 and 84 kDa depending on glycosylation status. This Tyrosinase Antibody T311, also called a TYR Antibody, has been cited in more than 300 scientific publications and is well suited for investigating melanogenesis, pigment cell biology, melanosome function, and melanoma research.



SDS-PAGE Analysis of Purified, BSA-Free Tyrosinase Antibody (clone T311). Confirmation of Integrity and Purity of the Antibody.

Description

Tyrosinase Antibody T311 / TYR Antibody recognizes tyrosinase (TYR), the copper-dependent oxidase responsible for the rate-limiting steps of melanin biosynthesis. TYR catalyzes the oxidation of tyrosine to L-DOPA and subsequently to dopaquinone, initiating the pathway that produces eumelanin and pheomelanin. As the principal regulator of melanogenesis, tyrosinase controls pigmentation of the skin, hair, and eyes while serving as one of the most widely used biomarkers of melanocyte differentiation and melanoma.

TYR is synthesized within the endoplasmic reticulum, where it undergoes folding, copper incorporation, and extensive N-linked glycosylation before trafficking through the Golgi apparatus to mature melanosomes. Proper processing is essential for enzymatic activity and stable melanin production. TYR functions alongside TYRP1, TYRP2 (DCT), PMEL, and additional melanosomal proteins to regulate melanosome maturation, pigment synthesis, and melanin transfer to neighboring keratinocytes. Defects in TYR expression or maturation reduce melanin production and underlie several inherited pigmentation disorders.

Because TYR expression is largely restricted to melanocytes and melanocytic tumors, it has become an important biomarker in dermatopathology and melanoma diagnosis. Mutations in the TYR gene cause oculocutaneous albinism type 1, while persistent TYR expression in many melanomas has led to its use in studies of tumor progression, immunotherapy, and melanoma differentiation. Tyrosinase also remains an important target in research on pigmentation disorders, developmental biology, and regenerative medicine.

Clone T311 is a mouse monoclonal antibody that has been cited in more than 300 scientific publications, demonstrating its widespread adoption for TYR detection in melanoma and pigment cell research. The extensive literature supporting this clone provides researchers with confidence in its performance across a variety of experimental settings. A Tyrosinase

Antibody T311 is a valuable research tool for investigating TYR, melanogenesis, melanosome biology, pigmentation disorders, and melanoma research.

For a broader overview of TYR biology, melanin biosynthesis, and melanocyte function, see our Tyrosinase Antibody / Melanin Biosynthesis Enzyme Antibody page.

Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the Tyrosinase Antibody T311 / TYR Antibody to be titered up or down for optimal performance.

1. Staining of formalin-fixed tissues requires boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 minutes.
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Recombinant Tyrosinase protein was used as the immunogen for the Tyrosinase Antibody T311. Subsequent testing has localized the epitope to within amino acids 233-247 (IPYWDWRDAEKCDIC) (see Citation 12).

Storage

Store the Tyrosinase Antibody T311 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Tyrosinase T311 antibody, TYR antibody, Tyrosinase antibody, Monophenol Monooxygenase antibody

References (1)

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