

Tyrosinase; Clone T311

Catalog Number	Format	Volume
A00132-0002	(Ready-To-Use)	2 ml
A00132-0007	(Ready-To-Use)	7 ml
A00132-0025	(Ready-To-Use)	25 ml
A00132-C	(Concentrate)	1 ml

Intended Use

For In-Vitro Diagnostic Use. This antibody is intended for the qualitative visualization of the anatomical elements listed in the Specificity section. It is intended to be used within an Immunohistochemistry (IHC) procedure on formalin-fixed paraffin-embedded (FFPE) human tissue followed by visualization by light microscopy.

Description

Titer/Working Dilution: Ready-to-Use: No further dilution required.

Concentrate: Suggested dilution is 1:100-200

Species:

Mouse

Immunogen:

A recombinant tyrosinase protein was used as the immunogen for the T311 antibody.

Clone:

T311

Isotype:

Mouse IgG1

Format:

Ready-To-Use antibody has been pre-titrated and quality controlled to work on formalin-fixed paraffin-embedded as well as acetone fixed cryostat tissue sections. No further titration is required.

Concentrate antibody is provided in a phosphate buffer saline containing 1% BSA.

Specificity:

Tyrosinase has been shown to be a very specific marker for melanomas, not cross reacting with other tumors or normal tissues tested.

Background:

Tyrosinase (Tyr) is a trans-membrane glycoprotein which plays a key role in the melanosynthetic pathway and is required for the synthesis of both types of melanin, eumelanin and pheomelanin (Hu, 2011). Tyrosinase is the rate limiting enzyme catalyzing the first two steps in the melanin biosynthesis, converting tyrosine to L-dihydroxy-phenylalanine (DOPA) and subsequently to DOPAquinone (K, 2013). The pigmentation of skin, the browning of vegetables, wound healing and cuticle formation in insects are some of the major responsibilities performed by tyrosinase (Yin, 2011). This protein is related with severe skin diseases such as type 1 albinism and melanoma and an important target for anti-melanoma vaccine therapies (Popescu, 2006 and Han, 2007). Anti-tyrosinase antibodies may be applied for immunotherapy in patients with malignant melanoma (Merimsky, 1998).

Species Reactivity:

Human. Others not known.

Positive Control:

Human Melanoma.

Cellular Localization:

Cell membrane / Membrane raft.

Microbiological State:

Nonsterile

Materials and Reagents Required but not Provided

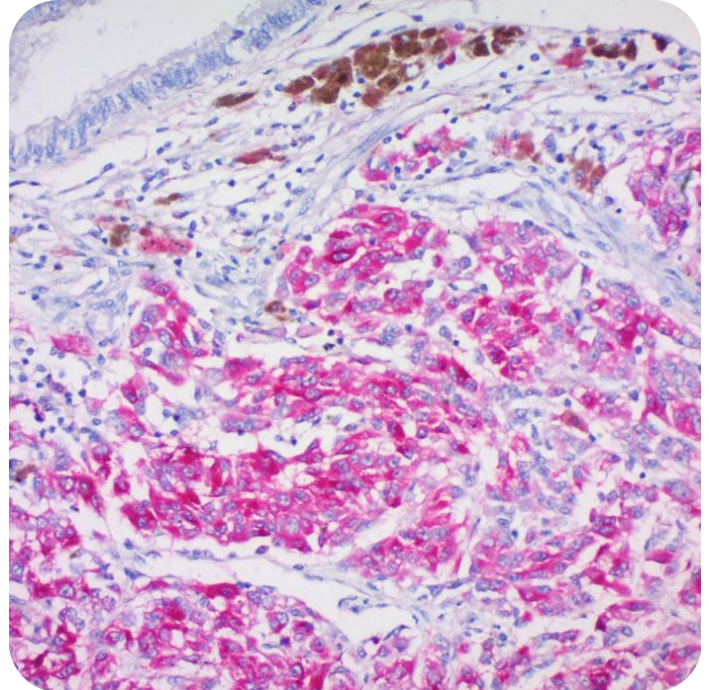
- Control tissue and reagents
- Xylene, graded alcohols, and deionized/distilled water
- Antibody Diluent.
- IHC detection system. Suggested: ScyTek Cat# ABZ125 "CRF Anti-Polyvalent HRP Polymer" and ScyTek Cat# ACV500 "DAB Chromogen/Substrate Kit (High Contrast)".
- Wash buffer for rinses (ScyTek Cat# TBT500)

6. HIER Retrieval Solution

7. Hematoxylin counterstain and bluing reagent (ScyTek Cat# HMM500 and BRT500)

8. Mounting medium and coverslips

Note: ScyTek Laboratories has a wide range of IHC reagents and ancillaries that can be found at scytek.com.



Human Melanoma stained using UltraTek Alk-Phos and Permanent Red Chromogen.

Procedure

1. **Tissue Section Pretreatment (Highly Recommended):** Staining of formalin fixed paraffin embedded tissue sections is significantly enhanced by pretreatment with Tis-EDTA HIER Solution (10x) pH 9.0 (ScyTek catalog# TES500) or Citrate Plus (10x) HIER Solution (ScyTek catalog# CPL500)


2. **Primary Antibody Incubation Time:** We suggest an incubation period of 30 minutes at room temperature. However, depending upon the fixation conditions and the staining system employed, optimal incubation should be determined by the user.

3. **Visualization:** For maximum staining intensity we recommend the "CRF Anti-Polyvalent HRP Polymer" (ScyTek catalog# ABZ125, see IFU for instructions) combined with the "DAB Chromogen/Substrate Bulk Pack (High Contrast)" (ScyTek catalog# ACV500, see IFU for instructions).

Storage and Stability

Do not Freeze. Store at 2-8°C. Return to 2-8° immediately after use. Do not use after expiration date printed on label. Verify visually that antibody has not been contaminated before use. Do not use if reagent becomes cloudy or precipitates.

Storage: 2° C  8° C

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Limitations

Immunohistochemistry is a complex technique involving both histological and immunological detection methods. Tissue processing and handling prior to immunostaining can cause inconsistent results. Variations in fixation and embedding or the inherent nature of the tissue specimen may cause variations in results. Endogenous peroxidase activity or pseudoperoxidase activity in erythrocytes and endogenous biotin may cause non-specific staining depending on detection system used. This data sheet's recommendations and procedures were validated using ScyTek IHC reagents and may not be suitable for other detection systems.

Precautions

1. Contains Sodium Azide as a preservative (0.09% w/v), do not ingest. Sodium Azide may react with lead and copper plumbing to form highly explosive metal azides. Upon disposal, flush with large volumes of water to prevent azide build-up in plumbing. This product contains no hazardous material at a reportable concentration according to U.S. 29 CFR 1910.1200, OSHA Hazardous Communication Standard and EC Directive 91/155/EC.
2. Do not pipette by mouth.
3. Avoid contact of reagents and specimens with skin and mucous membranes.
4. Avoid microbial contamination of reagents or increased nonspecific staining may occur.
5. The user must validate any procedures and recommendations that differ from this data sheet.
6. The SDS may be found at scytek.com

References

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2. Han HY, Lee JR, Xu WA, Hahn MJ, Yang JM, Park YD. Effect of Cl- on tyrosinase: complex inhibition kinetics and biochemical implication. J Biomol Struct Dyn. 2007 ; 25(2):165-71.
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Warranty

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8° C



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