P.O. Box 3286 - Logan, Utah 84323, U.S.A. - Tel. (800) 729-8350 – Tel. (435) 755-9848 - Fax (435) 755-0015 - www.scytek.com

Tyrosinase; Clone T311
(Concentrate)

Availability/Contents:

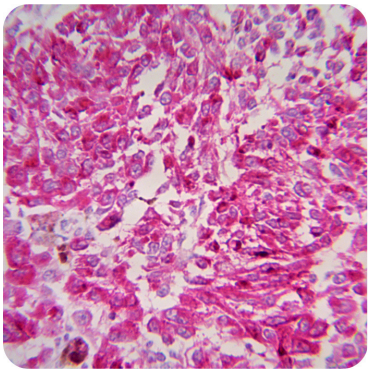
Item #	Volume
A00132-C	1ml

Description:

Species:	Mouse
Immunogen:	A recombinant tyrosinase protein was used as the immunogen for the T311 antibody.
Clone:	T311
Isotype:	Mouse IgG1
Format:	This 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.
Positive Control:	Human Melanoma
Cellular Localization:	Cell Membrane/ Membrane raft
Titer/ Working Dilution:	Immunohistochemistry 1:100 - 1:200
Microbiological State:	This product is not sterile.

Uses/Limitations:

Not to be taken internally.
For In-Vitro Diagnostic Use.
This product is intended for qualitative immunohistochemistry with normal and neoplastic formalin-fixed, paraffin-embedded tissue sections, to be viewed by light microscopy.
Do not use if reagent becomes cloudy.
Do not use past expiration date.
Use caution when handling reagents.
Non-Sterile.



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

Ordering Information and Current Pricing at www.scytek.com

Storage: 2° C 8° C

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CE IVD

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Molsnstraat 15
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Procedure:

1. **Tissue Section Pretreatment (Highly Recommended):** Staining of formalin fixed, paraffin embedded tissue sections is significantly enhanced by pretreatment with Citrate Plus (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 "UltraTek HRP Anti-Polyvalent Lab Pack" (ScyTek catalog# UHP125, see IFU for instructions) combined with the "DAB Chromogen/Substrate Bulk Pack (High Contrast)" (ScyTek catalog# ACV500, see IFU for instructions).

Precautions:

Contains Sodium Azide as a preservative (0.09% w/v).
Do not pipette by mouth.
Avoid contact of reagents and specimens with skin and mucous membranes.
Avoid microbial contamination of reagents or increased nonspecific staining may occur.
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.

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.
3. Merimsky O, Shoenfeld Y, Fishman P. The clinical significance of antityrosinase antibodies in melanoma and related hypopigmentary lesions. Clin Rev Allergy Immunol. 1998;16(3):227-36.
4. Francis E, Wang N, Parag H, Halaban R, Hebert DN. Tyrosinase maturation and oligomerization in the endoplasmic reticulum require a melanocyte-specific factor. J Biol Chem. 2003 ;11; 278(28): 25607-17.
5. Hu HH, Guedj M, Descamps V, Jouary T, Bourillon A, Ezzedine K, Taieb A, Bagot M, Bensussan A, Saiag P, Grandchamp B, Basset-Seguin N, Soufir N. Assessment of tyrosinase variants and skin cancer risk in a large cohort of French subjects. J Dermatol Sci. 2011; 64(2):127-33.
6. Yin SJ, Si YX, Wang ZJ, Wang SF, Oh S, Lee S, Sim SM, Yang JM, Qian GY, Lee J, Park YD. The effect of thiobarbituric acid on tyrosinase: inhibition kinetics and computational simulation. J Biomol Struct Dyn. 2011.
7. K B, Purohit R. Mutational analysis of TYR gene and its structural consequences in OCA1A. Gene. 2013 Jan 15;513(1):184-95.

Warranty:

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Storage: 2° C  8° C

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