Product datasheet

Anti-Tyrosinase antibody [T311] ab738

Overview

Product name  Anti-Tyrosinase antibody [T311]
Description  Mouse monoclonal [T311] to Tyrosinase
Host species  Mouse
Specificity  Studies have shown tyrosinase to be a very specific marker for melanomas, not cross reacting with any other tumors or normal tissues tested. Other studies have shown tyrosinase to be a more sensitive marker when compared to HMB-45 and MART-1. It has also shown to label a higher percentage of desmoplastic melanomas than HMB-45. However, both tyrosinase and MART-1 negative staining was seen in those variants without an epidermal component. Unlike HMB-45, neither tyrosinase or MART-1 discriminates between activated or resting melanocytes. In conclusion, tyrosinase appears to be a superior melanoma marker when compared to HMB-45.

Species reactivity  Reacts with: Human
Immunogen  Recombinant full length protein.
Positive control  Melanoma
General notes  This product was changed from ascites to tissue culture supernatant on [20/07/17]. The following lots are from ascites and are still in stock as of [20/07/17] – [GR278593]. Lot numbers higher than [GR278593] will be from tissue culture supernatant. Please note that the dilutions may need to be adjusted accordingly.

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form  Liquid
Storage instructions  Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer  Preservative: 0.099% Sodium azide
               Constituents: 0.9% Proprietary component, 99% Water
### Target

**Function**
This is a copper-containing oxidase that functions in the formation of pigments such as melanins and other polyphenolic compounds. Catalyzes the rate-limiting conversions of tyrosine to DOPA, DOPA to DOPA-quinone and possibly 5,6-dihydroxyindole to indole-5,6 quinone.

**Involvement in disease**
Defects in TYR are the cause of albinism oculocutaneous type 1A (OCA1A) [MIM:203100]; also known as tyrosinase negative oculocutaneous albinism. An autosomal recessive disorder in which the biosynthesis of melanin pigment is absent in skin, hair, and eyes. It is characterized by complete lack of tyrosinase activity due to production of an inactive enzyme. Patients present with a life-long absence of melanin pigment after birth, and manifest increased sensitivity to ultraviolet radiation with predisposition to skin cancer. Visual anomalies include decreased acuity, nystagmus, strabismus and photophobia. Defects in TYR are the cause of albinism oculocutaneous type 1B (OCA1B) [MIM:606952]; also known as albinism yellow mutant type. An autosomal recessive disorder in which the biosynthesis of melanin pigment is reduced in skin, hair, and eyes. It is characterized by partial lack of tyrosinase activity. Patients have white hair at birth that rapidly turns yellow or blond. They manifest the development of minimal-to-moderate amounts of cutaneous and ocular pigment. Some patients may have with white hair in the warmer areas (scalp and axilla) and progressively darker hair in the cooler areas (extremities). This variant phenotype is due to a loss of tyrosinase activity above 35-37 degrees C.

**Sequence similarities**
Belongs to the tyrosinase family.

**Cellular localization**
Melanosome membrane.

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**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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