



Qty: 100 µg/200 µl

Mouse anti-Tyrosinase

Catalog No. 35-6000

Lot No.

## Mouse anti-Tyrosinase

### FORM

This monoclonal antibody is supplied as a 200 µl aliquot at a concentration of 0.5 mg/ml in PBS, pH 7.4, containing 0.1% sodium azide. This antibody is highly purified from mouse ascites by protein A chromatography.

**CLONE:** T311

**ISOTYPE:** Mouse IgG<sub>2a</sub>

### IMMUNOGEN

Recombinant tyrosinase protein.

### SPECIFICITY

This antibody reacts with the human tyrosinase protein. On Western blots, it identifies a cluster of proteins ranging from 70-80 kDa and a minor band at 55 kDa in cell lines that are strongly reactive (ie SK-MEL-19).

### REACTIVITY

Reactivity has been confirmed with human SK-MEL-19, SK-MEL-13, and SK-MEL-37 melanoma cell lines.

Sample	Immuno-histochemistry (paraffin)*	Immuno-histochemistry (frozen)	Western Blotting	Immuno-precipitation (native)
Human	+++	+++	+++	0
Mouse	ND	ND	ND	ND
Rat	ND	ND	ND	ND

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

### USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

**Immunohistochemistry<sup>(2)</sup> :** 1 µg/mL  
**Western Blotting :** 1-5 µg/mL

\* Note: Heat induced epitope retrieval (HIER) with EDTA, pH 8.0, prior to staining, is recommended for optimal immunohistochemical results with paraffin-embedded tissues.

### STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

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**BACKGROUND**

Tyrosinase is the principal enzyme required for the synthesis of melanin pigment by melanocytes in mammals.<sup>1</sup> It is also a marker of melanocyte differentiation, and is commonly expressed by malignant melanoma.<sup>2</sup> Tyrosinase immunoreactivity studies in formalin-fixed, paraffin-embedded tissues have demonstrated that the T311 antibody is a specific, sensitive marker for the detection of melanocytic lesions.<sup>2,3</sup> Immunoreactivity has also been shown to correlate inversely with clinical stage of melanoma progression.<sup>3</sup> Because tyrosinase is recognized by cytotoxic T cells from melanoma patients,<sup>4,5</sup> it has been proposed as an immunotherapeutic target for melanoma vaccines.

The molecular mass of tyrosinase is 60-75 kDa.<sup>1</sup> However, the processed, glycosylated forms of the protein found in melanosomes have been reported at 70-75 kDa.<sup>1</sup> The T311 antibody identifies a cluster of proteins at 70-80 kDa, consistent with previous reports.

**REFERENCES**

1. Chen Y-T, et al. *PNAS* 92:8125-8129, 1995.
2. Jungbluth AA, et al. *Pathol Res Pract* 196:235-242, 2000.
3. Hofbauer GF, et al. *J Cutan Pathol* 25(4):204-209, 1998.
4. Brichard VA, et al. *J Exp Med* 178:489-495, 1993.
5. Robbins PF, et al. *Cancer Res* 54:3124-3126, 1994.

**RELATED PRODUCTS**

<b>Product</b>	<b>Clone/PAD*</b>	<b>Cat. No.</b>
Mouse anti-Tyrosinase	T311	18-7352
Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

\*PAD: Polyclonal Antibody Designation

<b>Conjugate</b>	<b>ZyMAX™ Goat x Rabbit IgG (H+L)</b>	<b>ZyMAX™ Goat x Mouse IgG (H+L)</b>
Purified	81-6100	81-6500
FITC	81-6111	81-6511
TRITC	81-6114	81-6514
Cy™3	81-6115	81-6515
Cy™5	81-6116	81-6516
HRP	81-6120	81-6520
AP	81-6122	81-6522
Biotin	81-6140	81-6540

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