#### References

- 1. Shanti KN, Martin BM, Nagpal S, Metcalfe DD, Subba Rao PV. Identification of tropomyosin as the major shrimp allergen and characterization of its IgE-binding epitopes. *J Immunol*. 1993; 151 (10):5354-5363.
- 2. Daul CB, Slattery M, Reese G, Lehrer SB. Identification of the major brown shrimp (*Penaeus aztecus*) allergen as the muscle protein tropomyosin. *Int Arch Allergy Immunol.* 1994; 105(1):49-55.
- 3. Jeoung BJ, Reese G, Hauck P, Oliver JB, Daul CB, Lehrer SB. Quantification of the major brown shrimp allergen Pen a 1 (tropomyosin) by a monoclonal antibody-based sandwich ELISA. *J Allergy Clin Immunol.* 1997; 100(2):229-234.
- Santos AB, Rocha GM, Oliver C, Ferriani VPL, Lima RC, Palma MS, Sales VSF, Aalberse RC, Chapman MD, Arruda LK. Crossreactive IgE antibody responses to tropomyosins from Ascaris lumbricoides and cockroach. *J Allergy Clin Immunol* 2008; 121 (4):1040-1046.



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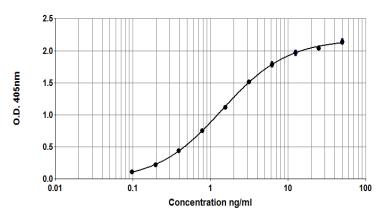


# **Tropomyosin ELISA kit**

**Product Code: EL-TPM** 

**Lot Number: xxxxx** 

### Sample Curve:



#### Content:

Vial 1 (red top) 100 μL

Monoclonal antibody 1A6 Concentration: 1mg/ml in PBS

Vial 2 (white top) 400 μL

Tropomyosin Standard

Concentration: 500ng/ml Tropomyosin

Vial 3 (brown) 100 µL

Rabbit anti Shrimp Tropomyosin

Dilute: 1:1000 for use

Storage: The ELISA kit should be stored at 4°C

For research and commercial use in vitro: not for human in vivo or therapeutic use.

## **Certificate of Analysis**

Monoclonal Antibody:

1A6

Immunogen:

Mite (D. pteronyssinus) extract

Isotype:

Mouse IqG1

Specificity:

Binds to specific epitope present on

D. pteronyssinus tropomyosin allergen, Der p 10.

Cross reactive with shellfish tropomyosin.

Purification:

Produced in ascites and purified by chromatography using Protein A. Single heavy and light chain bands

on SDS-PAGE.

Concentration:

1.0 mg/ml in phosphate buffered saline, pH 7.4.

Based on A280 for IgG (1.42=1mg/ml) 0.22µm

filtered, preservative free.

Lot Number:

XXXXX

Polyclonal Antibody:

Rabbit anti Shrimp Tropomyosin Purified natural Shrimp Tropomyosin

Immunogen: Specificity:

The pAb contains IgG antibodies to shellfish

tropomyosin.

Composition:

The pAb is in phosphate buffered saline, pH 7.4, containing 1%BSA/50% glycerol. The pAb has been

0.22µm filtered and should be diluted 1/1000 for use

in the Tropomyosin ELISA.

Lot Number:

XXXXX

Allergen Standard:

Natural Shrimp Tropomyosin

Purified naturally Shrimp Tropomyosin prepared in Composition:

1% BSA, 50% glycerol/PBS, pH 7.4.

Concentration:

500na/ml

Calibration: The concentration of the purified natural shrimp

tropomyosin was determined by amino acid analysis. There are no national or international

Reference standards for tropomyosin.

Lot Number: XXXXX

The ELISA detects predominantly invertebrate Specificity:

tropomyosin from: dust mites (D. pteronyssinus and D. farinae), cockroach, shrimp, crab, lobster, clam, oyster. Mammalian or avian tropomyosin from beef, pork, lamb and turkey do not react in the assay.

## **ELISA Protocol for Tropomyosin.**

- 1. Coat polystyrene microtiter plates (NUNC Maxisorp Cert. NUNC catalog # 439454) with 100µl mAb 1A6 at 10µl/10ml, i.e. 1/1000 dilution of stock, in 50mM carbonate-bicarbonate buffer, pH 9.6. incubate overnight at 4°C.
- 2. Wash wells 3x with PBS-0.05% Tween 20, pH 7.4 (PBS-T). Incubate for 30 min. at room temperature with 100µl/well of 1% BSA. PBS-T. Wash 3x with PBS-T.
- 3. Use doubling dilutions of the Shrimp Tropomyosin Standard to make a control curve ranging from 50 - 0.1ng/ml: Pipette 20µl standard into 180µl 1% BSA, PBS-T into wells A1 and B1 on the ELISA plate. Mix well and transfer 100µl across the plate into 100µl 1% BSA, PBS-T diluent to make 10 serial doubling dilutions. Wells A11, B11 and A12, B12 should contain only 1% BSA, PBS-T as blanks.
- Add 100µl of diluted allergen samples and incubate for 1 hour at 4. room temperature. House dust extracts for tropomyosin analysis are routinely diluted two-fold from 1/10-1/80. Other sample types. like air filter extracts and allergen extracts, may require different dilutions.
- 5. Wash wells 3x with PBS-T and add 100µl diluted polyclonal Rabbit anti shrimp tropomyosin antibody. The antibody solution contains 50% glycerol and should be diluted 1/1000 in 1%BSA, PBS-T. Incubate for 1 hour at room temperature.
- 6. Wash wells 3x with PBS-T and add 100µl diluted Peroxidase conjugated Goat anti-Rabbit IgG (Jackson Laboratories Cat# 111-036-046, reconstituted in 1 ml distilled water and 1ml glycerol). The reconstituted Goat anti- Rabbit IgG should be diluted 1/1000 (i.e. 10µl/10ml) in 1% BSA, PBS-T. Incubate for 1hour at room temperature.
- 7. Wash wells 3x and develop the assays by adding 100µl 1mM ABTS in 70mM citrate phosphate buffer, pH 4.2 and 1/1000 dilution of H<sub>2</sub>O<sub>2</sub>. Read the plate when the absorbance at 405nm reaches 2.0-2.4.

#### Notes:

Buffer recipes, storage conditions and a list of frequently asked questions can be found under "Protocols" on our web site: www.inbio.com.

For research and commercial use in vitro: not for human in vivo or therapeutic use.