

# Triiodothyronine (ME-124): sc-57481

## BACKGROUND

Triiodothyronine (T3) is a tyrosine-based hormone made by the thyroid gland with three iodine molecules attached to its molecular structure. It is the most powerful thyroid hormone affecting almost every process in the body, including body temperature, growth and heart rate. Triiodothyronine also regulates protein, fat and carbohydrate metabolism and is an important component in the synthesis of iodine. Triiodothyronine easily crosses the cell membrane and functions through a set of receptors in the nucleus to increase the basal metabolic rate, affect protein synthesis and increase the body's sensitivity to catecholamines. This hormone may also inhibit neuronal activity, thereby playing an important role in the hibernation cycles of some mammals. Triiodothyronine is essential for proper development and differentiation of all cells of the human body. Hyperthyroidism can be caused by an excess of circulating free Triiodothyronine.

## REFERENCES

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2. Fedorovich, E.I. and Demidchik, IuE. 2003. Triiodothyronine and thyroxin binding to red blood cells in children and adolescents with thyroid cancer. *Vopr. Onkol.* 48: 661-663.
3. Kariv, R., Enden, A., Zvibel, I., Rosner, G., Brill, S., Shafritz, D.A., Halpern, Z. and Oren, R. 2003. Triiodothyronine and interleukin-6 (IL-6) induce expression of HGF in an immortalized rat hepatic stellate cell line. *Liver Int.* 23: 187-193.
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5. Shimada, N. and Yamauchi, K. 2004. Characteristics of 3,5,3'-Triiodothyronine (T3)-uptake system of tadpole red blood cells: effect of endocrine-disrupting chemicals on cellular T3 response. *J. Endocrinol.* 183: 627-637.
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8. Kimura, K., Shinozaki, Y., Jujo, S., Shizuma, T., Fukuyama, N. and Nakazawa, H. 2006. Triiodothyronine acutely increases blood flow in the ventricles and kidneys of anesthetized rabbits. *Thyroid* 16: 357-360.

## SOURCE

Triiodothyronine (ME-124) is a mouse monoclonal antibody raised against Triiodothyronine.

## PRODUCT

Each vial contains 100 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Triiodothyronine (ME-124) is recommended for detection of Triiodothyronine by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with T2, rT3 and T4.

## SELECT PRODUCT CITATIONS

1. Rehberger, K., Baumann, L., Hecker, M. and Braunbeck, T. 2018. Intrafollicular thyroid hormone staining in whole-mount zebrafish (*Danio rerio*) embryos for the detection of thyroid hormone synthesis disruption. *Fish Physiol. Biochem.* 44: 997-1010.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.