## SANTA CRUZ BIOTECHNOLOGY, INC.

# Triiodothyronine (S-191): sc-52835



#### 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 to 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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- Olson, R.D., et al. 2005. Doxorubicin cardiac dysfunction: effects on calcium regulatory proteins, sarcoplasmic reticulum and Triiodothyronine. Cardiovasc. Toxicol. 5: 269-683.
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- Saravanan, P., et al. 2006. Psychological well-being correlates with free Thyroxine but not free 3,5,3'-Triiodothyronine levels in patients on thyroid hormone replacement. J. Clin. Endocrinol. Metab. 91: 3389-3393.

## STORAGE

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

#### SOURCE

Triiodothyronine (S-191) is a mouse monoclonal antibody raised against Triiodothyronine of human origin.

## PRODUCT

Each vial contains 100  $\mu g~lg G_{2a}$  in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Triiodothyronine (S-191) is recommended for detection of Triiodothyronine of human origin by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

### **RESEARCH USE**

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

## PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.